NORTH ATLANTIC TREATY ORGANIZATION

SCIENCE AND TECHNOLOGY ORGANIZATION

AC/323(HFM-227)TP/703

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STO TECHNICAL REPORT **TR-HFM-227**

Building Effective Collaboration in a Comprehensive Approach

(Etablissement d'une collaboration efficace selon une approche globale)

This Technical Report documents the findings of a project on 'Building Effective Collaboration in a Comprehensive Approach' by Task Group 227 for the STO Human Factors and Medicine Panel.

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by

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The NATO Science and Technology Organization

Science & Technology (S&T) in the NATO context is defined as the selective and rigorous generation and application of state-of-the-art, validated knowledge for defence and security purposes. S&T activities embrace scientific research, technology development, transition, application and field-testing, experimentation and a range of related scientific activities that include systems engineering, operational research and analysis, synthesis, integration and validation of knowledge derived through the scientific method.

In NATO, S&T is addressed using different business models, namely a collaborative business model where NATO provides a forum where NATO Nations and partner Nations elect to use their national resources to define, conduct and promote cooperative research and information exchange, and secondly an in-house delivery business model where S&T activities are conducted in a NATO dedicated executive body, having its own personnel, capabilities and infrastructure.

The mission of the NATO Science & Technology Organization (STO) is to help position the Nations' and NATO's S&T investments as a strategic enabler of the knowledge and technology advantage for the defence and security posture of NATO Nations and partner Nations, by conducting and promoting S&T activities that augment and leverage the capabilities and programmes of the Alliance, of the NATO Nations and the partner Nations, in support of NATO's objectives, and contributing to NATO's ability to enable and influence security and defence related capability development and threat mitigation in NATO Nations and partner Nations, in accordance with NATO policies.

The total spectrum of this collaborative effort is addressed by six Technical Panels who manage a wide range of scientific research activities, a Group specialising in modelling and simulation, plus a Committee dedicated to supporting the information management needs of the organization.

- AVT Applied Vehicle Technology Panel
- HFM Human Factors and Medicine Panel
- IST Information Systems Technology Panel
- NMSG NATO Modelling and Simulation Group
- SAS System Analysis and Studies Panel
- SCI Systems Concepts and Integration Panel
- SET Sensors and Electronics Technology Panel

These Panels and Group are the power-house of the collaborative model and are made up of national representatives as well as recognised world-class scientists, engineers and information specialists. In addition to providing critical technical oversight, they also provide a communication link to military users and other NATO bodies.

The scientific and technological work is carried out by Technical Teams, created under one or more of these eight bodies, for specific research activities which have a defined duration. These research activities can take a variety of forms, including Task Groups, Workshops, Symposia, Specialists' Meetings, Lecture Series and Technical Courses.

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Published November 2017

ISBN 978-92-837-2019-5

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Acknowledgements

Task Group HFM-227 on "Building Effective Collaboration in a Comprehensive Approach" operated in the context of the Human Factors and Medicine (HFM) Panel of the NATO Science and Technology Organization (STO). We would like to acknowledge the support of the STO Executive and Secretary, and of the HFM Panel Chair, Task Group mentor, and members. Our group consisted of representatives from USA (ARI; Mind Alliance), Canada (DRDC), NATO (ACT), Estonia (ICDS), and was chaired by the Netherlands (TNO).

Meetings were hosted, chronologically, in Paris (NATO Science and Technology Organization (STO), Rome (University); New Jersey (Mind Alliance), Soesterberg (TNO), Stockholm (Swedish Military College), and Toronto (Defence Research and Development Canada (DRDC), Toronto Research Centre). The directors of these establishments are gratefully thanked for their hospitality and logistical support.

We thank the early contributions at our Paris meeting of Sweden (FOI – Swedish Defence Agency), and civil-military operational expert Mr. Michel Rentenaar. Mr. Rentenaar was between August 2009 and February 2010 Director of the Provincial Reconstruction Team in Uruzgan and commanded (together with a one star army general) the Task Force Uruzgan VII in Afghanistan. Until 2012 he was the Civil-Military Interface Advisor at the NATO Supreme Headquarters Allied Powers in Europe.

We thank Mr. Greg Brunelle for his contribution at the New Jersey meeting. Mr. Brunelle is Acting Director of the New York State Office of Emergency Management and has led the State's response and recovery efforts for Long Island during the Superstorm Sandy in 2012.

We thank Ms. Maria Fuentenebro of the United Nations World Food Program (WFP) for her contribution to discuss civil-military interaction. Ms. Fuentenebro is Policy Officer at the Humanitarian Crises and Transitions Unit, Policy Division of WFP.

We thank Mr. John Smyers of the Consortium Research Fellows Program and Kansas State University for reviewing published instruments that measure the constructs in the Quality of Interaction Assessment.

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Building Effective Collaboration in a Comprehensive Approach

(STO-TR-HFM-227)

Executive Summary

Recent history has demonstrated that complexity is the hallmark of contemporary crises. Effective responses to such complexity are predicated on the expertise and resources of some combination of those organisations and agencies that can address governance, development, rule of law, and security, as required by the specifics of the crisis. Hence, the vast majority of responses will involve a range of actors, comprising governmental, public and private organisations, including civil society, and the military. Such a Comprehensive Approach (CA) is an integral part of many strategic-level documents of NATO, the United Nations and the European Union, as well as the national-level strategies of many countries.

However, the very strength of this comprehensive diversity can also lead to significant and sometimes profound challenges given the complex set of differences between the agencies and organisations involved. As a consequence, effective collaboration in such settings is a highly complex and challenging undertaking. While many publications mention complexity, HFM-227 wanted to take a step further and focus on the basic mechanisms of complex collaboration, and provide commanders, leaders and members of CA collectives a tool to achieve a well-developed CA. Our work was guided by the following insights:

- First, the key to effective collaboration lies in the *people* representing the organisations who are called upon to realise it – technology will enhance collaboration but will remain only an enabler of an essentially human undertaking.
- Second, a CA strategy includes a wide range of players, including those Non-Governmental Organisations (NGOs) whose underlying philosophy is to be and remain seen impartial and neutral in a mission area, precluding all but the most limited of interactions with governmental or military entities. While recognizing the larger number of entities that exist in the mission area, our emphasis here is on the *processes* that underlie any form of interaction of information exchange, coordination, cooperation or collaboration.
- Third, the complexities inherent in a CA mission mean that a variety of factors can affect mission outcome that are well beyond the control of members of a CA collective. Thus, our efforts are directed to the assessment of those factors most related to the *quality of interaction* among those willing CA contributors.

Initial chapters of this report outline relevant theory and lessons learned from practice. National level implementation of the CA construct with links with total defence approaches is discussed. The empirical work conducted in CA exercises in Canada and the Netherlands and Germany provides detailed analyses to understand what is needed to realise effective interactions during CA training or operational missions. A new exercise approach for CA that enables intensive interaction between a diversity of organisations in realistic scenarios was positively evaluated and may provide input for other international CA exercises.

Integrating these sources with the objectives of HFM-227, we developed an initial Quality of Interaction Assessment (QIA) framework, comprising organisational and interpersonal readiness factors. The QIA framework was used to develop an initial QIA instrument and assessment tool, which is intended to help CA leaders, participants and/or observers/evaluators to identify and discuss what aspects need attention and repair or encouragement and what can be celebrated and maintained. The report concludes by proposing next steps with respect to further development of the QIA framework and assessment tool.

Etablissement d'une collaboration efficace selon une approche globale

(STO-TR-HFM-227)

Synthèse

L'histoire récente a démontré que la complexité est la marque des crises contemporaines. L'efficacité de la réaction à cette complexité dépend de l'expertise et des ressources d'une combinaison des organismes et agences capables d'assurer la gouvernance, le développement, l'application du droit et la sécurité, selon les besoins particuliers de la crise. De ce fait, l'immense majorité des réactions implique un éventail d'acteurs – organisations gouvernementales, organisations publiques et privées – incluant la société civile et l'armée. Cette approche globale fait partie intégrante de nombreux documents de niveau stratégique de l'OTAN, des Nations Unies et de l'Union Européenne, ainsi que des stratégies nationales de nombreux pays.

Cependant, cette diversité peut en soi engendrer des problèmes importants et parfois profondément enracinés, étant donné les différences complexes entre les agences et les organismes concernés. Il est donc extrêmement complexe et difficile d'établir une collaboration efficace dans un tel contexte. Bien que de nombreuses publications mentionnent la complexité, le HFM-227 a voulu aller plus loin et se focaliser sur les mécanismes de base de la collaboration complexe, afin de fournir aux commandants, dirigeants et membres des collectifs d'approche globale un outil leur permettant d'obtenir une approche globale bien élaborée. Notre travail a été guidé par les informations suivantes :

- Primo, la clé de la collaboration efficace est entre les mains des *personnes* qui représentent les organisations sollicitées ; la technologie améliore la collaboration, mais n'est qu'un élément facilitant une entreprise essentiellement humaine.
- Secundo, une stratégie d'approche globale inclut une large gamme d'acteurs, notamment des organisations non gouvernementales (ONG) dont la philosophie est de demeurer impartiales et neutres dans une zone de mission, ce qui n'autorise que les interactions les plus limitées avec les entités gouvernementales ou militaires. Tout en reconnaissant qu'un grand nombre d'entités interviennent dans la zone de mission, nous nous attachons ici aux *processus* qui sous-tendent toute forme d'interaction, d'échange d'information, de coordination, de coopération ou de collaboration.
- Tertio, en raison de la complexité inhérente à une mission selon l'approche globale, il existe divers facteurs échappant complètement au contrôle des membres d'un collectif. Nous orientons donc nos efforts vers l'évaluation des facteurs les plus liés à la *qualité de l'interaction* entre les contributeurs.

Les premiers chapitres de ce rapport décrivent la théorie correspondante et les enseignements tirés de la pratique. L'application du concept d'approche globale au niveau national en lien avec les approches de défense totale fait l'objet d'une discussion. Les travaux empiriques menés lors des exercices d'approche globale au Canada, aux Pays-Bas et en Allemagne fournissent des analyses détaillées permettant de comprendre ce qui est nécessaire à l'interaction efficace pendant l'entraînement ou les missions de terrain appliquant l'approche globale. Une nouvelle approche globale d'exercice, qui permet une interaction intensive entre diverses organisations dans des scénarios réalistes, a été évaluée positivement et pourrait fournir des données pour d'autres exercices internationaux d'approche globale.

En intégrant ces sources d'information dans les objectifs du HFM-227, nous avons élaboré un cadre d'évaluation de la qualité d'interaction (QIA), comprenant des facteurs de préparation organisationnels et

interpersonnels. Le cadre de QIA a servi à développer un instrument et outil initial d'évaluation de QIA, destiné à aider les dirigeants, les participants et les observateurs / évaluateurs de l'approche globale à identifier et discuter des aspects qui ont besoin d'attention, d'amélioration ou de soutien et ceux qui peuvent être célébrés et maintenus. Le rapport conclut en proposant les prochaines étapes à suivre pour développer le cadre et outil de QIA.

Chapter 1 − INTRODUCTION TO BUILDING EFFECTIVE COLLABORATION IN A COMPREHENSIVE APPROACH

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1.1 MULTI-STAKEHOLDER SETTINGS

There is a common understanding that insecurity and instability in fragile states and conflict areas often results from a complicated interplay of diverse factors, such as political instability, weak state structures, and economic, social and cultural conditions [10]. Improving stability and state building requires the use of multiple instruments of governance, development, rule of law, and power. There is not one institution that can achieve change in society given the multi-dimensionality of most situations − multiple stakeholders from government, military, public and private organisations, including civil society should be part of the response to crisis. Stakeholders involved comprise national and international actors as well as host country or local actors. Such a view is also reflected in NATO documents such as the Bucharest Summit declaration ([11]; see also Chapter 2) which stated that "*it is essential for all major international actors to act in a coordinated way and to apply a wide spectrum of civil and military instruments in a concerted effort that takes into account their respective strengths and mandates*" – a Comprehensive Approach (CA). The concept of multi-dimensionality of fragility and conflict and the realisation that multiple parties need to coordinate implies a certain level of interdependence in achieving the higher-level goal, which cannot be achieved without cooperation in sharing information, and sometimes the sharing of resources. Coordination of tangible assets such as materiel, resources, procedures, processes, and activities and cooperation, the willingness to work together for the same end or for mutual benefit are two crucial facets of collaborative efforts, used here as umbrella term for many forms of inter-organisational interaction. Improving inter-organisational interaction in operational context is the focus of this report.

Various broad and narrow definitions exist of the Comprehensive Approach and as well as various related terminology (see Chapter 3 for definitions of the various terms; see also Ref. [13]) such as:

- Integrated;
- 3D (Defence, Diplomacy, Development);
- Holistic;
- Vernetzte Sicherheit (networked security);
- Whole of Government;
- Whole of Society.

The concept has sometimes been referred to as internal coordination, of for example in UN, EU or national governmental agencies (as was originally the case), or is seen as mainly referring to civil-military coordination. Consequently, there can be many Comprehensive Approaches based on their scope and how they are implemented [5]. Given these differences, formulating a 'one- size-fits-all' definition will fail. Still, it may help to address what all these efforts have in common. In essence a comprehensive approach is about:

> *Bringing together diverse perspectives to develop a broad view on the issues at hand as a basis for decision making and coordination and cooperation in action.*

Determining whether to pursue these goals with the exclusive input of governmental agencies (Whole of Government) or including civil society (Whole of Society) is a matter of understanding the intended effect and how it may be best achieved. The diverse perspectives of the various contributors reflect their position as stakeholders in the issue. The process of bringing together these diverse capabilities and perspectives is best done by direct interaction between the parties representing those perspectives, rather than by assuming – even if expert-based – other parties' positions. For instance, adopting a comprehensive approach from an exclusively military position without informed input from the other agencies or groups that are contributing to the mission, or understanding the perspectives of those groups operating in the mission area, even if they are not contributing to CA mission goals can result in a response that focuses on military intervention as the dominant approach to dealing with insecurity and instability or indeed any crisis. This focus may ultimately suffer because of a lack of understanding of the strengths – or of the constraints – of the potential contributions of other agencies and groups. Even worse however, this oversight may be attributed to a wilful dismissal of the capabilities of other entities, which can lead to an escalation of tensions within the CA collective. As a consequence, it is important that any military action, or indeed the actions of any participating group or agency, be placed in the context of all other relevant dimensions and measures. Civil and military actors most often operate in the same mission space at the same time in CA; thus, it is imperative that there should be not only strategic (governmental) level of interaction, but also effective middle (operational) and lower (tactical) levels of interaction.

Given their complexities, in principle there is no limit to the specific mission contexts for application of the above mentioned essential tenets of a Comprehensive Approach, be it international non-Article 5 operations, humanitarian missions or even national defence ('total defence') and national crisis operations. Take for instance humanitarian crises. These are all complex situations in terms of the potential:

- Acuteness of needed action;
- Disruption of physical, governmental, business, and social infrastructures;
- Overall lack of situational information;
- The involvement of highly diverse collectives of national as well as international actors.

Indeed, militaries increasingly are being used as first responders due to their capabilities of:

- Materiel;
- Logistics;
- Manpower;
- Communications; and
- Command and control.

The overlapping spheres of activity by humanitarian and military actors within a geographical area necessitate the communication and comprehension of their respective roles, mandates, activities, and constraints in addition to things such as areas of operations. In theory, guidelines of civil-military cooperation make a sharp distinction between natural disasters in peacetime [12] and complex emergencies, i.e., humanitarian relief in conflict areas [9]. However, in practice this distinction may not be so clear amongst humanitarians and military resulting in different interpretations of the situation and in different coordination strategies and approaches to the use of military assets, which creates confusion in the relations and cooperation between these actors [7].

Within such operational settings effective interaction and collaboration has often proven to be complex and difficult. Given the range of parties with diverse, and sometimes conflicting, objectives and fundamentally

independent positions, generally no unity of command or unity of purpose or unity of effort can be expected as a given. Even if awareness of mutual interdependencies and a will to interact to achieve objectives (in whatever context) is present and shared between the parties, structured and sustained interaction has been shown to be difficult and require substantial effort for a variety of reasons. In particular, effective collaboration requires:

a) Sufficient knowledge about the other parties to start asking about, rather than assuming, operating principles, expertise and experiences, and capabilities;

b) Developed social networks with a basic level of trust;

c) Support through organisational arrangements; and

d) Social competencies, in order to achieve a successful implementation of a comprehensive approach.

In fact, failing to develop such an approach in this way will significantly increase the chances of failure.

1.2 INVESTING IN COLLABORATIVE CAPABILITIES

Ultimately, the ability to effectively collaborate (i.e., cooperate, coordinate) in complex conditions does not come from protocols and formalized procedures nor from information systems, although all these are important enablers in the system. Rather, the ability to utilize and indeed to optimize the benefits of diversity and dynamics under conditions of uncertainty is generated by the humans in the collective. Given the right conditions humans are able to span the boundaries of the many sub-systems that are active, to reach out for the expertise and resources needed, to organise and adapt to situations, and to make decisions. Humans are the drivers of the system, not outside some system 'sitting on top of the machinery'; rather they *are* the system with the supporting technical and structural systems they use. Building a collective human capability across parties will facilitate interaction and communication and contribute to delivering well-coordinated, converging actions.

Building a collective human capability is about connecting the leaders and their teams in effective and dynamic interacting networks. The main human mechanisms underlying such networks are leadership behaviours and boundary spanning behaviours [4]. Leadership activities are not limited to formally designated leaders. Rather, team members without formal leadership authority may engage in leadership activities as well, resulting in different, complex configurations of emergent leadership [2]. Leadership activities include making sense of complex operating environments, developing guidance and providing support for the teams. Alignment of such activities across different levels is crucial. Boundary spanning refers to a variety of activities to explore knowledge from other organisations and link this to own knowledge. "*Boundary spanning is located at the interface between organisational units both within and across formal (e.g., legal) boundaries, from simple information exchange to complex and real-time behaviour integration and coordination*" [3]. Organisations must build and maintain direct or indirect working relationships with each other through boundary spanning activities to build effective interaction networks and promote attainment of the higher-level goals [8].

Due to the complexity of managing diverse positions and interests, *building* effective interactions is an essential preparation process for a future cooperation and collaboration capability. Capability building has two sides to it: one is specific, directed to preparing with the parties that are identified to work with in a particular crisis; and the second is more generic, investing in raising the general capability of an organisation to effectively engage with sectorial and cross-sectorial parties one may meet in a wide range of potential crises. Preparation should address both aspects. Being able to bring a high generic capability to a suddenly emerging crisis enables faster adaptation to the new situation. Such high generic capability will also speed up and improve learning in specific preparations.

While it has widely been recognized that a high level of preparedness in advance of crises can substantially improve the response, the reality is that "*Our evaluations somewhat stubbornly continued to tell us that we were falling short*", Head OCHA Regional Office for Asia and the Pacific Oliver-Lacey Hall concluded when reviewing civil-military cooperation in recent crises in his region [6]. Similarly, EU stakeholders in crisis planning and decision-making confirm that joint and harmonised training and effective exercises are in high need of improvement [1]. Such joint training is already developing at some places, but to accelerate learning to effectively apply a comprehensive approach to complex situations, we need to invest in:

a) Developing and using common frameworks for inter-organisational preparation exercises;

b) Sharing approaches and results of these preparation efforts; and

c) Evaluating the interaction and collaboration processes in a systematic way.

This report aims to contribute to these identified needs.

1.3 REPORT OVERVIEW

In this introductory chapter we have briefly introduced the complexity of security and safety crises, which demands a broad setting of multiple stakeholders to achieve a Comprehensive Approach to this complexity. To be able to address complex problems, there is a need to focus on building a collective human capability to effectively interact across parties. NATO HFM-227 RTG addressed two questions in this context:

a) What is needed to build and improve the quality of interaction in CA? and

b) How can these factors be systematically assessed to support the parties and their leader in achieving a well-developed CA?

The following chapters address these two questions in more detail:

- In Chapter 2, *The Evolution of the Comprehensive Approach in NATO*, we review the evolution of the Comprehensive Approach in NATO. The formulation of CA as principle in NATO's strategic documents shows that CA is solidly anchored in the high-level thinking and the documentation of that. The operational-level implementation of CA in NATO is less clear. For this we have to look at the nations, where we see that CA is growing in breadth and depth, as is demonstrated in the next chapters.

- In Chapter 3, *Stakeholder Interactions in a Whole of Government Approach – Conditions for Success*, the conditions of a successful Whole of Government (WoG) approach are discussed. In particular, Chapter 3 outlines the many levels at which the principles and the challenges that underlie CA occur. For instance, WoG approaches are one level of implementation of CA which focuses on the cooperation between governmental agencies in a Nation. A link is being made between the concept of 'Total Defence' and CA. This seems a likely continued application of CA in current globalisation of threats and instability.

- Chapter 4, entitled *Inter-Agency Trust: A Descriptive Model and Application to Collaboration in Comprehensive Approach Missions*, gives us a deeper insight in one of the recurrent themes of inter-organisation interaction that is, the development and maintenance of trust. Without trust, interaction remains distant and incomplete. Without trust one cannot expect that information is conceived of as a critical human dimension of effective collaboration, especially in diverse teams and collectives. The chapter reviews what we need to know about the development of trust and applies this specifically

to the CA context. Guidance is given as to how inter-agency trust may be achieved or maintained within a CA collective of involved organisations.

- Chapter 5, *Collaboration in Comprehensive Approach Exercises: Empirical Findings*, presents empirical findings from a rich set of civil-military exercises and training seminars from two countries – the Netherlands and Canada. While the opportunities for inter-organisational training are growing, systematic empirical evidence is largely lacking. In this chapter, the authors bring their data from multiple studies in Canada and the Netherlands together and draw conclusions on which aspects appear to be most critical for developing an effective CA process.

- Chapter 6, *Integrating Lessons Learned from the Field: Preparing for a Comprehensive Approach*, aims to make a next step in the design of exercises meant as preparation for CA processes. Based on TNO's lessons learned from five years of monitoring and evaluating civil-military exercises, it is concluded that focus should be more on enabling intensive interaction between organisations that are involved in CA. The guidelines for exercises drawn from these studies have resulted in a new paradigm for exercising and developing inter-organisational interaction. The focus is on enabling structured, intensive interaction to build mutual understanding of the diversity and differences that exist between the parties – the mission requirements and the strengths, resources and constraints that each member group of a CA collective brings to the table. A first application and evaluation of this exercise approach is described. The chapter ends with a framework for an integrated exercise approach based on a model of continuous learning from exercises and field applications of effective interaction for CA.

- In Chapter 7, *Quality of Interaction in a Comprehensive Approach Collective: Conceptual Overview*, the information presented in the previous chapters regarding the various factors important to the development of quality interactions is condensed into a list of requirements for effective interaction between organisations that are present in a CA collective. The list is organised into two overarching requirements of 'Organisational Readiness' and 'Interpersonal Readiness'. Within these, additional dimensions assumed to be related to effective CA collaboration are identified, which serve as the basis for a survey instrument that is presented in the next chapter.

- Chapter 8, *Quality of Interactions: Assessment Instrument*, introduces the intent of Quality of Interactions (QIA) instrument that is the assessment of indicators of effective interaction as a basis for coordination and cooperation in the collective. Key principles that guided the development of the inventory are reviewed. The overall structure and the procedures of its use are also described as well as the items that are intended to assess the quality of interaction within a CA collective. We also provide an example of how the data from the QIA assessment instrument can be analysed and can be summarized in graphical form for a non-scientific audience.

- Chapter 9, *Summary, Future Research and Conclusion*, discusses issues raised in the previous chapters and specifies possible next steps that should be taken to implement and further improve the instrument and the proposed new paradigm of civil military exercises. In the conclusion we address critical necessities to further build effective inter-organisation interaction needed for the development of the Comprehensive Approach.

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Chapter 2 – THE EVOLUTION OF THE COMPREHENSIVE APPROACH IN NATO

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2.1 INTRODUCTION

NATO has a relatively long history of thinking about the Comprehensive Approach (CA) which started in its 1999 Strategic Concept. In a series of strategic documents this concept has been developed, and concrete actions were taken to specify the doctrine that should align this, such as the Allied Command Operations (ACO) Comprehensive Operations Planning Directive (COPD) which provides a common framework for collaborative operations, a specific section within Allied Command Transformation (ACT) to further the CA development, and the Comprehensive Crisis and Operations Management Centre (CCOMC) early May 2012. This chapter provides a more detailed insight into the development of the concept within NATO and finally discusses the current status of the comprehensive approach within NATO. Only the publically available documents at strategic level are being addressed.

2.2 THE CONCERTED PLANNING AND ACTION INITIATIVE

The 1999 Strategic Concept described the evolving security environment and noted that it is complex and global, and subject to unforeseeable events. The Strategic Concept recognised that peace, security and development were more interconnected than ever and that instability, followed by a disruption of the above mentioned factors, posed a main challenge to the Alliance.

To alleviate the lack of civilian capacity and stimulate coordination with other international organisations in light of the changed security environment, the Alliance began to develop its own concept of crisis management. This started with the Concerted Planning and Action (CPA) initiative that was introduced into Alliance discussions by Denmark in 2004. The idea behind CPA was not to create new capabilities, but to fully exploit existing capacity for the missions that were ongoing at the time. In 2006, the originally Danish initiative was further bolstered by the U.S. and eventually formally placed on the agenda at the Riga Summit in 2006.

It was then in the Comprehensive Political Guidance (CPG) of November 2006, following the Riga Summit, that the NATO Heads of State and Government formally acknowledged the Comprehensive Approach and noted that, with regard to defence planning, NATO should support:

> "*The ability and flexibility to conduct operations in circumstances where the various efforts of several authorities, institutions and nations need to be coordinated in a comprehensive manner to achieve the desired results, and where these various actors may be undertaking combat, stabilisation, reconstruction, reconciliation and humanitarian activities simultaneously*".[2]

[1] Ms. Frédérique Wesselingh, former trainee at NATO Internal Operations Office, wrote the main part of this chapter contracted by TNO.

[2] Comprehensive Political Guidance #16h – http://www.nato.int/cps/on/natohq/official_texts_56425.htm.

Interesting to note is that it was not in the CPG that the Comprehensive Approach found its origins, but rather in the position paper of the Military Committee in June 2006, that called for a "*comprehensive application of various instruments of the Alliance combined with the practical cooperation along with involved non-NATO actors*". In this paper, such coherence and practical cooperation was named the Effects Based Approach to Operations (EBAO) and was followed by the EBAO Pre-doctrinal [8], [12] which was designed to incorporate the idea behind EBAO into Allied joint doctrine on the long term. The idea of EBAO was then finally incorporated at the Bucharest Summit in 2008, under the header of the Comprehensive Approach, although both concepts significantly differ from each other. That is to say that whereas EBAO is detailed and programmatic, the discourse that surrounds the Comprehensive Approach is malleable and the implementation may differ on a case-by-case basis. Nevertheless, the Comprehensive Approach was given a prominent place in the Bucharest Summit declaration, where it was stated that:

> "*Experiences in Afghanistan and the Balkans demonstrate that the international community needs to work more closely and take a comprehensive approach to address successfully the security challenges of today and tomorrow. Effective implementation of a comprehensive approach requires the cooperation and contribution of all major actors (…). To this end, it is essential for all major international actors to act in a coordinated way and to apply a wide spectrum of civil and military instruments in a concerted effort that takes into account their respective strengths and mandates*" [3].

Here, it is worth noting that the concept 'Comprehensive Approach' differs and is used differently from 'Civil-Military Cooperation' (CIMIC). CIMIC is seen as a tool used to support the operational military work and may constitute a sub-element in the overall CA effort.

2.3 THE COMPREHENSIVE APPROACH ACTION PLAN

The Comprehensive Approach Action Plan was endorsed in order to move forward with a set of pragmatic proposals, where it was stressed that one of the most important facets of the Comprehensive Approach is that it is a concept, rather than a manual or a set of rules. This was reflected in the Comprehensive Approach Action Plan that proposed actions in four strands of work, namely:

1) Planning and Conduct of Operations;
2) Lessons Learned, Training, Education and Exercises;
3) Enhancing Co-operation with External Actors; and
4) Public Messaging.

The proposals in the Action Plan were swiftly taken forward. For example, in the 2008 NATO-UN Declaration[4], both organisations committed to work together more closely and establish a framework for consultation and co-operation and reaffirmed their willingness to provide assistance to regional and sub-regional organisations as requested. In addition, the Allies underlined their determination to improve the NATO-EU strategic partnership at the Lisbon Summit in November 2010[5]. At the same Lisbon Summit, the importance of the Comprehensive Approach was reiterated and a clear link was made between Stabilisation and Reconstruction (S&R) activities in crisis management operations and the Comprehensive Approach. It was noted that:

[3] http://www.nato.int/cps/en/natolive/official_texts_8443.htm – Statement #11.

[4] http://streitcouncil.org/uploads/PDF/UN-NATO%20Joint%20Declaration.pdf.

[5] http://www.nato.int/cps/en/natohq/official_texts_68828.htm.

> "*To improve NATO's contribution to a comprehensive approach and its ability to contribute, when required, to stabilisation and reconstruction, we have agreed to form an appropriate but modest civilian capability to interface more effectively with other actors and conduct appropriate planning in crisis management (…)*"[6].

The commitment to enhance NATO's contribution to a civil-military approach was discussed prior to the Lisbon Summit at the Defence Ministers' meeting in October 2010, where Allies agreed Political Guidance on Ways to Improve NATO's Involvement in Stabilisation and Reconstruction[7].

The tasks that came forth out of the Comprehensive Approach Action Plan, the Report to Heads of State and Government on Progress in Implementation of the Comprehensive Approach Action Plan and NATO's Ability to Deliver Stabilisation and Reconstruction Effects, as well as the Political Guidance on Ways to Improve NATO's Involvement in Stabilisation and Reconstruction, were brought together in a coherent matrix in order to facilitate coordinated implementation and monitoring. This was done in 2011, in the Updated List of Tasks for the Implementation of the Comprehensive Approach Action Plan and the Lisbon Summit Decisions on the Comprehensive Approach[8]. The tasking led to multiple updated Military Committee (MC) documents and other strategic documents that proposed new guidelines and directions. The message that:

1) NATO should promote a shared sense of purpose among international actors; and
2) That an effective implementation of the comprehensive approach requires all actors to contribute in a concerted effort was clearly conveyed.

In addition to the updated documents, NATO closely cooperated in the field, as well as at the headquarters. For example, NATO cooperated with the UN during Operation Unified Protector and with UNAMA during the ISAF mission. At the staff level, annual staff talks are held, UN-NATO Education Days are organised and staffs from both organisations participate in each other's training and education courses. Similar activities are being organised with the EU, the World Bank, ICRC and the IOM, e.g., the yearly NATO's Comprehensive Approach Awareness Course, which brings together staff from a variety of IO's and NGO's. In addition to this, as stated in the Chicago Summit Declaration, an "appropriate but modest" civilian crisis management capability has been established both at NATO HQ and within the Allied Command Operations (ACO), in accordance with the principles and detailed political guidance set out at the Lisbon Summit. At NATO HQ, this led to the formation of the Civil-Military Planning and Support (CMPS) team, that has been divided into an 'Operational Preparedness' section (OpPrep) and a 'Civil Preparedness' section (CivPrep) in February 2015. The counterpart of the two above-mentioned sections at the Supreme Headquarters Allied Powers Europe (SHAPE) is the Comprehensive Crisis and Operations Management Centre (CCOMC). The establishment of the unit was triggered by the 2008 Georgia conflict and the Arab Spring and the experiences in Afghanistan realising the need to connect better with the non-military dimensions and the representative civil actors. This unit, comprising military and civil expertise, has been tasked to address Crisis Identification, Current Operations, Estimations and Options, Response Direction and Crisis Review, providing SHAPE with "*the ability to sense, to connect with international actors, and analyse situations to be ready when our leaders call on us to begin planning*" as the former SACEUR ADM U.S. N (rtd.) James Stavridis mentioned at the CCOMC's inauguration in 2012[9].

[6] http://www.nato.int/cps/en/natohq/official_texts_68828.htm – Statement #9.

[7] http://www.nato.int/cps/en/natohq/official_texts_78314.htm.

[8] https://jadl.act.nato.int/NATO/data/NATO/lm_data/lm_12820/999/objects/il_0_file_35471/20111130_NU_NATO-IS-NSG-PO(2011)0529-Action-Plan-Comprehensive-Approach.pdf.

[9] https://www.youtube.com/watch?v=P15IPoib7p4.

Since the introduction of the Comprehensive Approach in 2006 and over the years, its implementation progressed and culminated into the clear statement in paragraph 99 of the 2014 Wales Summit Declaration:

> "*In light of NATO's operational experiences and the evolving complex security environment, a comprehensive political, civilian and military approach is essential in crisis management and cooperative security. Furthermore, it contributes to the effectiveness of our common security and defence, without prejudice to Alliance collective defence commitments. (…) The comprehensive approach is conducive to more coherence within NATO's own structures and activities (…). As part of NATO's contribution to a comprehensive approach by the international community, we will enhance cooperation with partner nations and other actors, including other international organisations, such as the UN, the EU and the OSCE, as well as non-governmental organisations, in line with decisions taken. We will ensure that comprehensive approach-related lessons learned, including from ISAF, will be carried forward and applied in various strands of work and new initiatives, includes, as appropriate, the Readiness Action Plan, the Connected Forces Initiative, the Defence and Related Security Capacity Building Initiative, and the Partnership Interoperability Initiative*"[10].

The four elements that are imperative in the evolution of the common perception of NATO's comprehensive approach are:

- A comprehensive political, civilian, and military approach is not only essential in crisis management and cooperative security but it also contributes to the effectiveness of our common security and defence, without prejudice to Alliance collective defence commitments.
- The comprehensive approach is conducive to more coherence within NATO's own structures and activities.
- As part of NATO's contribution to a comprehensive approach by the international community, we will enhance cooperation with Partner Nations and other actors.
- Comprehensive approach-related lessons learned, including from ISAF, will be carried forward and applied in various strands of work and new initiatives, including, as appropriate, the:
  - Readiness Action Plan;
  - Connected Forces Initiative;
  - Defence and Related Security Capacity Building Initiative; and
  - Partnership Interoperability Initiative.

The Wales Summit Declaration wording on comprehensive approach is very relevant to prepare, deter and – if needed – defend against all threats and challenges, including a hybrid threat. In order to do so, the Alliance must act in a coherent manner both internally and externally.

2.4 CURRENT STATUS OF COMPREHENSIVE APPROACH

Since 2012, several CA implementation reports have been issued. Also, the way ahead on the Comprehensive Approach Specialist Support (COMPASS) programme was formulated[11]. The COMPASS programme is a mechanism which enables NATO to tap into the civilian capacities/expertise available in Allied and Partner Nations linked to the functional areas of, amongst other topics:

[10] http://www.nato.int/cps/en/natohq/official_texts_112964.htm – Statement #99.

[11] http://www.nato.int/cps/en/natohq/official_texts_78314.htm – Statement #14.

- Stabilisation and reconstruction;
- Institution building;
- Capacity building;
- Security/defence sector reform;
- Peace-building and crisis management.

In addition, the Community of Interest on the implementation of a comprehensive approach was established and has been organised yearly[12] and was meant to give Allies, relevant NATO staffs, and international organisations and non-governmental organisations the opportunity to exchange views on the evolution of thinking, concepts and practices on issues of interface with civilian partners, civil-military analysis and planning.

The latest important document that has been issued in the spirit of the comprehensive approach, are the Guidelines on Engaging Local Actors[13], following up on one of the items in the updated list of tasks for the implementation of the comprehensive approach to develop and discuss with other actors proposals to continuously engage the local actors.

In sum, NATO and other institutions such as the UN have recognised that an effective implementation of CA requires all actors to contribute in a concerted effort, based on a shared sense of responsibility, openness and determination, taking into account their respective strengths, mandates and roles as well as their decision-making autonomy. The mindset will most likely further develop since the concept of 'hybrid warfare', introduced in NATO in 2014, and described as a covert military operations combined with sophisticated information and disinformation operations designed to counter hybrid threats, blending **conventional warfare**, **irregular warfare** and **cyber warfare**. Indeed, the importance of dealing with hybrid warfare has been explicitly connected to the Comprehensive Approach. At the opening of the March 2015 NATO Transformation Seminar the Secretary General Jens Stoltenberg, stated that:

> "*Hybrid is the dark reflection of our comprehensive approach. We use a combination of military and non-military means to stabilize countries. Others use it to destabilize them.*"[14]

The Secretary General then continued by urging that we need a comprehensive approach and work with the EU and other international partners to deter hybrid attacks and increase resilience of societies. This topic has been taken forward in several strategies and papers that are being developed at the moment [5] addressing hybrid threats and the long-term adaptation of the Alliance.

2.5 CONCLUDING THOUGHTS

This short overview has sought to describe the evolution of the NATO comprehensive approach that has moved from the crisis management spectrum to all core tasks as described at Wales in 2014, that is collective defence and crisis management the same time. The documents used here are mainly strategic documents. Documents at operational level, as far as publically accessible, also contain references to the comprehensive approach, such as for instance the Allied Command Operations Comprehensive Operations Planning Directive [4], the Allied Joint Doctrine for the Military Contribution to Peace Support Operations [1], or the Allied Joint Doctrine for Operational-Level Planning [2]. These doctrines and Directives have in general a formal and normative

[12] For example, http://www.nato.int/cps/en/natohq/news_116042.htm.

[13] Cited in Ref. [11] – see also Ref. [3].

[14] http://www.nato.int/cps/en/natohq/opinions_118435.htm.

('must-do') character, with formal training needed to instantiate it in the minds of military personnel and institutionalized into the routines of operations (for instance at the NATO School Oberammergau[15]). We do not know of systematic assessments on how CA actually has been implemented and executed in practice within NATO; indeed evaluations of CA in practice is weak has been noted as a gap in our understanding of CA and its implementation [6], [10]. Still, some insight in CA implementation may be found in the efforts done by, for instance, the First German Netherlands Corps (1GNC) – see Chapter 5.

In fact, despite the strategic-level endorsement, there are some – informal – signs that there is reduced attention to the consequent application of the comprehensive approach in NATO staffs. Several obstacles for the development of the CA have been mentioned [9]:

- Weak consensus amongst Allies;
- Weak conceptualisation;
- Military focus; and
- Wrong conceptualisation of inter-institutional cooperation (e.g., assuming a common cause).

Also new terminologies draw attention (e.g., hybrid) and the 'new' threats may push a kinetic and fighting perspective at the cost of a balanced approach.[16,17]

Notwithstanding the hurdles that still need to be addressed, we think that the common acknowledgement of the importance of CA, the working toward the implementation of this approach at national levels, as well as the higher-level strategy reaffirming CA will potentially advance NATO's application of CA (see also Ref. [7]).

2.6 REFERENCES

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[2] AJP-5, 2013, Allied Joint Doctrine for Operational-Level Planning, June 2013, http://nso.nato.int/nso/zPublic/ap/AJP-5%20E.pdf.

[3] Berge, A-J. ten (2014), Best & Bad Practices on Civil-Military Interaction, Civil-Military Co-operation Centre of Excellence (CCOE), The Hague, Netherlands.

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[15] See http://www.forsvarsmakten.se/siteassets/english/swedint/engelska/swedint/courses/nato-copc/s5-43-b-14-copc-draft-course-schedule.pdf.

[16] For instance, General Sir Adrian Bradshaw, NATO's Deputy Supreme Allied Commander in Europe, said "*tensions with Russia could become an all-out conflict*" Daily Mail 20 February, 2015, http://www.dailymail.co.uk/news/article-2961643/Russia-tensions-trigger-war-Britain-s-NATO-commander-warns-Soviet-style-tactics-pose-existential-threat-being.html.

[17] See Ref. [4], pg. 7: "*The Russian interference in Ukraine has fundamentally changed the situation at Europe's eastern borders. Article 5, NATO's original core task, has retaken its central position as confirmed at the Wales Summit. However, the hybrid nature of the new threats to the Alliance's East question the value of purely military responses taken under the Readiness Action Plan such as the establishment of the Very High Readiness Joint Task Force (VJTF)*".

[5] Drent, M., Hendriks, R. and Zandee, D. (2015), New Threats, New EU and NATO Responses, Clingendael, Netherlands Institute of International Relations, Clingendael Institute, The Hague, Netherlands, July 2015.

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[7] Essens, P.J.M.D, Thompson, M.M. and Halpin, S.M. (2014), Effective Inter-agency Interactions and Governance in Comprehensive Approaches to Operations, NATO STO Report, STO-MP-HFM-236.

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[10] Williams A.P., Bexfield, J. Farina, F.F. and de Nijs, J. (2013), Innovation in Operations Assessment: Recent Developments in Measuring Results in Conflict Environments, Norfolk, VA, USA: Headquarters Supreme Allied Commander Transformation.

[11] Williams, A.P. (2014), Organizational Implications of Interagency Interaction, In: Essens, P.J.M.D, Thompson, M.M. Effective Inter-agency Interactions and Governance in Comprehensive Approaches to Operations, NATO STO Report, STO-MP-HFM-236.

[12] Pre-Doctrinal Handbook (Effects Based Approach to Operations), J5PLANS/7740-065/07-203478 (ACO) and 3000 TI-388/TT-2156/Ser:NU0689 (ACT), 04 December 2007, See also: http://www.cicde.defense.gouv.fr/IMG/pdf/20110209_np_otan_bi-sc-knowledge-development.pdf

Chapter 3 – STAKEHOLDER INTERACTIONS IN A WHOLE OF GOVERNMENT APPROACH: CONDITIONS FOR SUCCESS[1]

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3.1 INTRODUCTION

The philosophy of comprehensive approach is put into practice through the interactions between various stakeholders, such as:

- Government agencies;
- Public sector and non-government organisations;
- Private sector enterprises;
- Local communities.

Due to the varied missions and mandates of these organisations, the approach to that interaction can vary considerably. For some organisations in the mission area this interaction will be limited to coexistence and minimal coordination to ensure that collateral damage is eliminated or minimized. For other organisations however, interaction within a comprehensive approach will mean close cooperation. As specified in Chapter 1, coordination and cooperation are two crucial facets of collaboration, which is used here as an umbrella term for many forms of inter-organisational interaction.

The aim of this chapter is to identify a set of conditions at various levels (national, organisational, team and even individual) that enable and facilitate interactions, especially collaborative ones, between security and defence stakeholders. It draws upon the literature concerning the Comprehensive Approach (CA) – the term has a variety of definitions, often referring to the concerted action of military and non-military actors in a theatre of operations – as well as on related concepts such as 'inter-agency cooperation' and the 'whole-of-government' approach, but essentially it is about bringing diverse perspectives together in a systematic way.

Although the term 'Comprehensive Approach' has been coined originally by NATO in relation to a particular kind of operation, specifically expeditionary or 'out-of-area' crisis response operations such as Iraq and Afghanistan, as argued earlier in this report its usage is also applicable to humanitarian missions, stabilisation, peace support and counterinsurgency, as well as to integrated responses domestic settings. For instance, involvement in domestic law enforcement has a history of limitations and is problematic even when there is a need for quick action in times of emergency, e.g., Hurricane Katrina [31]. Nonetheless, the linking internal and external dimensions of security continues to grow since the terrorist attacks of 2001 (New York) and 2004 (Madrid) and has become widely accepted [28]. However, some Nations, for instance Finland and Sweden, there has existed a close link between the military and civil governance since World War II, in a concept called

[1] This chapter with some minor changes has also been published as: Tomas Jermalavičius, Piret Pernik, Martin Hurtthe 'Comprehensive Security and Integrated Defence: Challenges of implementing whole-of-government and whole-of-society approaches. International Centre for Defence Studies Report. January 2014. Tallinn, Estonia.

'Total Defence'. In Total Defence military, government, local government, business, industry, civil organisations are all involved in integral plans on how to defend the country and maintain its security.

The military role in Total Defence is to support civilian actors, in a wide range of circumstances – from civil emergencies through security crises to military contingencies, with militaries assuming a greater role in defence against foreign military aggression. Therefore, both 'out-of-area', and domestic civil and military operations can be considered 'complex operations' involving multiple actors; combining many dimensions (political, military, technological, informational, human, environmental, economic, etc.); and dealing with a great number of dynamic factors and many uncertainties. It is therefore assumed that the conditions for collaboration sought by the proponents of expeditionary CA are also relevant, to a large extent, in ensuring collaboration amongst stakeholders in national broad-based defence and comprehensive security.

3.2 SETTING THE SCENE – SOME TERMINOLOGY ISSUES

Over time, policy and academic discourses have adopted a number of terms to depict a holistic approach to security and defence, and the principle of a broad and multi-faceted response to complex security challenges, including:

- Comprehensive security, which is "*the end-state of a nation's security policy achieved through the coordinated application of the multiplicity of government and non-government components and instruments involved in developing and maintaining a stable and peaceful environment that permits the effective operation of political, economic and social institutions for the overall benefit of citizens*" (Ref. [9]: 4).
- Comprehensive Approach (CA), understood as the "*interaction between various actors and organisations with the aim of generating coherent policy and action during periods of crises or disaster or in a post-conflict environment*" ([14]: 5; see Chapter 2 for a NATO specification of CA).
- Whole-of-Society Approach (WSA/WoS) to complex threats and risks, which refers to "*multi-sector, inclusive approaches that unify the experiences and resources of government, military, civil society, and the private sector*" (Ref. [25]: 27).
- Whole-of-Government Approach (WGA/WoG), which at the most fundamental level is a public administration model where "*horizontal co-ordination and integration are embedded in the process of policy design and implementation*" (Ref. [21]: 14), or which takes the form of "*concerted and coordinated interagency effort to apply all elements of government power*" (Ref. [30]: 4).

As suggested in the discussion up to this point, the interactions between various actors and organisations in security and defence can take many forms and levels. There is much debate in the literature on ordering levels of interaction, from loosely coupled to tightly coupled. One conceptualisation is given by Stickler (Ref. [30]: 7) – Interactions can range in 'inter-agency maturity' level from very basic (consultation) and elementary (cooperation) to intermediate (coordination) and advanced (collaboration) (the features of each are briefly described in the Table 3-1 below).

Table 3-1: Inter-Agency Maturity Levels (Ref. [30]: 7).

Interagency Maturity Levels	Basic Elements Contributing to Overall IA Maturity Level				
	Interagency Relationships	Information Access	Agency Goals	Agency Attitude	Interagency Process
Basic (Consultation)	Minimal	Restricted: Briefings confined to specific actions underway	Independent; frequently conflict	Self-absorbed	Sporadic
Elementary (Cooperation)	Personal	Limited: Information exchanged to deconflict operations, to stay out of each other's way	Independent but aware of others	Friends could be helpful	Unstructured
Intermediate (Coordination)	Organizational	Expanded: Willing to share future plans to garner mutual support	Independent but aligned with others	Friends are essential	Organized
Advanced (Collaboration)	Institutional	Extensive: Information flow supports full planning cycle and integrated operations	Mutual and reinforcing	Cannot do it alone	Systematic

However, one should be aware that there are other schemes that avoid a qualification order but define cooperation and coordination, as 'What' and 'How', respectively: Cooperation addresses what contributions are made and what outcomes are expected by the partners, and Coordination refers to how interactions are organized by the partners [12]. Cooperation can range from high to low depending on what is agreed between the partners. In similar vein, coordination can address a limited aspect, e.g., avoiding conflict of interest, without further cooperation. We intent to avoid definition wars, and, with collaboration as umbrella term in the title, our report applies to any level because it focuses on the essential underlying mechanisms of interaction and building understanding.

3.3 CONDITIONS AT NATIONAL LEVEL

One of the first factors determining the ease with which a particular Nation's civilian and military agencies, as well as other organisations, interact is the tradition and culture of its security governance. In many Nations concerned about the inherent power of the military and the possibility of its misuse, and in Nations with a strong tradition of 'checks and balances', there is a strict legal separation of the armed forces and other security organisations [20]. The importance of this separation is built into the very constitutional fabric of the Nation. It is also often manifested in strict limits placed on the peacetime activities of the military on domestic soil, to the point of banning the military from directing any civilian activity.

One important implication of such a tradition and culture is that military and civilian organisations lack the habits, incentives and arrangements that would facilitate their collaboration. This in turn engenders the tendency to 'stovepipes', defend their turf and to hold rather hostile views of one another. Even after 9/11 – with the

ensuing emphasis on better integrated homeland security solutions and on a comprehensive approach in overseas operations – change in such inter-organisational dynamics is taking place at various paces and with varying degrees of success. For instance, it is only recently, following a ruling of its Constitutional Court, that Germany has begun to allow a very limited role for its armed forces on German territory to counter assaults which threaten 'catastrophic consequences' (BBC News, 17 August 2012[2]).

As noted earlier, at the other end of the spectrum, there are countries with a long-standing tradition of 'total' defence, adept at thinking about and preparing to deploy all national resources to meet the overriding objective of fending off military aggression, or countries with experience in fighting protracted insurgencies, where the boundaries of military and civilian (law enforcement, intelligence, security) organisations have blurred and their activities intermingled. This experience is particularly applicable today, when the dividing lines between external and internal security are becoming obscured due to the rise of trans-national security issues such as terrorism, proliferation of weapons of mass destruction, organised crime, disruption of critical infrastructure and services (e.g., by means of cyber-attacks) [19].

Still, in practice these conditions may not necessarily lead to a smooth WoG; indeed, competition between various agencies could be just as pronounced or, in the case of a total defence mind-set, one agency (the military) might be too dominant. On the other hand, such a tradition and culture within security governance may lead to more experience with cooperation, coordination and collaboration, better informal networking habits and more positive attitudes towards the criss-crossing of agency lines and the reaching out to all relevant stakeholders (e.g., as in the UK; see Ref. [1]). Involving non-governmental stakeholders in overall security and defence efforts may also come more naturally to such security governance cultures if a culture of collaboration is instantiated and dominant (e.g., Ref. [23]).

A second powerful national-level factor determining the intensity of interaction between various agencies is the existence of meaningful (as opposed to superficial) political, strategic and societal consensus regarding the overall national ends, ways and means, and regarding the goals of participating in particular civil-military operations [29], [9]. Without such a consensus, different actors within and outside government find it difficult to relate their mission, daily activities and initiatives to a broader picture and with one another; they become driven by narrow agency interests and short-term opportunities [15].

In turn, reaching a meaningful political and strategic consensus requires a culture of continuous dialogue and compromise, which is itself hard to achieve in the highly competitive realm of politics and amidst rivalry for limited resources. As Rotman (Ref. [26]: 4) puts it when writing about national-level fragmentation as an obstacle to CA, "*all major players needed for a truly Comprehensive Approach face bureaucratic and political incentives that largely favour parochial interests over investing in common solutions*".

3.4 GOVERNMENT-LEVEL RESPONSE

To overcome the institutional fragmentation and to make WoG work, it is often necessary to undertake certain government-level procedural adjustments and institutional restructuring. First and foremost, this entails creating and maintaining a proper joint cabinet-level analysis, planning, coordination, monitoring, evaluation and funding mechanism through which multi-functional strategies can be processed. In most cases, this requires a cabinet-level unit dedicated to coordinating security and defence policies and strategies as well as amalgamating the inputs (including financial ones) of various agencies. In addition, 'issue-based units' (counter-terrorism, cyber security, etc.) under cabinet supervision and staffed by personnel from various agencies, are necessary to

[2] http://www.bbc.com/news/world-europe-19295351.

overcome institutional 'stovepipes' and address the issues which cut across agency lines [29], [20], [14]. As Fitz-Gerald and Macnamara (Ref. [9]: 6) argue, "*the efforts of one unit within a ministerial portfolio on its own neither will, nor should, provide the leadership and modus operandi for comprehensive security*".

Furthermore, civilian agencies in particular need to grapple with the fact that, compared to military organisations, they lack vertical integration as "*they do not have the equivalent of operational level headquarters to bridge the gap between national-level policy/strategy and tactical actions on the ground*" (Ref. [27]: 37). This makes civil-military integration at the operational level particularly difficult and often leaves no choice but to rely, for operational planning purposes, on military command structures with a few civilians inserted into them – hardly an optimal organisational solution for 'complex operations' in which the military's contribution is often supposed to form only a small part of the overall effort.

On the other hand, it has often been noted that broad and ambitious organisational reforms undertaken by governments in order to enable WoG and CA have not taken off in most countries, while more limited process-oriented changes (especially in joint planning and inter-agency project management) have been more useful. These lesser measures "*have helped to reduce transaction costs, facilitate communication among departments, and pool expertise and resources from different corners of the government architecture*" (Ref. [1]: 36), but without threatening the organisational identity of separate agencies.

Coherence of government policy and an overarching consensus-based vision for security and defence matter a great deal in facilitating interaction between different agencies and non-governmental stakeholders. As Jennings (Ref. [15]: 105) puts it, "*in the absence of an integrated strategic vision, agencies go rogue – driven by mandates, not strategy*". According to Hull (Ref. [14]: 8), it assumed that "*a government's engagement in a conflict or disaster will cost fewer resources and be more likely to achieve greater and more sustainable impact if the ministries share the same understanding of the problem and have a shared and well-sequenced strategy to address it*". However, this has to be supplemented with efforts to harmonise the strategic planning, capability development and operational deployment processes and practices of the various governmental organisations with a role in national security and defence.

Different organisations employ different planning methodologies, are driven by varying time horizons and have very different approaches to building capabilities, managing projects and exercising leadership, making their cooperation, coordination and especially their collaboration quite complicated tasks. These differences to varying degrees exist between all civilian organisations, whether they are governmental or non-governmental, and military organisations. As Schnaubelt (Ref. [27]: 41) notes: "*The military in some ways is like a fire department – only a relatively small portion of its total number is engaged in operations at any particular time. The remainder is in reserve waiting for a call to action, or in training, or undergoing a 'reset' to prepare for a specific future operation. Civilian agencies are more like a police department – nearly all of their personnel are engaged in current operations with almost no float for training and virtually none being held in reserve.*"

Governments are thus advised to 'establish a permanent, enduring, and robust education, training, doctrine, materiel and organisational approach among the various agencies' [3] involved in 'complex operations' which require cross-functional inputs and inter-agency efforts.

Interaction between government agencies is also often hampered by a lack of technical and administrative interoperability, especially when it comes to Command, Control, Communications, Computers and Information (C4I), logistics, various Standard Operating Procedures (SOPs), knowledge management systems (data collection, fusion and sharing) and even personnel management (e.g., rotation cycles). Indeed, inter-agency interoperability – or "*thick and frequent interaction among the organisations and individuals involved in complex engagement spaces as they engage in planning, decision making and operations*" (Ref. [13]: 42) –

should be considered as part of an agency's capability set (other capability components being Doctrine, Organisation, Training, Materiel, Leadership, Personnel and Facilities – DOTMLPF).

Extending this aspect further, it should be noted that, at the strategic and operational levels, all governmental agencies must have a common operating picture, built by fusing data from different sources and agencies and through this develop a common understanding of complex security situations (Ref. [2]: 5). While professional and personal relationships are vitally important for coordination and cooperation, they still need to be supported by shared information, common operational pictures, and the technologies that support them. This is because all of the technologies in the world will not create a COP on their own, COP always ultimately resides in the mind of the perceiver, and takes a willingness to share and utilize technologies that are available to facilitate sharing of information. And thus, informal mechanisms will be enhanced and facilitated by ensuring technical and procedural interoperability wherever possible. However, simply providing technical and process mechanisms will not ensure that they are utilized if the individuals in the different organisations are not motivated to use them in a cooperative or collaborative fashion.

If the WoG is often impaired by legal, cultural, organisational and technical issues, it is even more difficult to achieve a WoS. CA proponents argue for some level of integration, or at least consultation, of non-governmental partners in the joint effort of drafting strategies, policies and their implementation plans, and in the planning and conduct of operations. However, the diversity of such partners – ranging from humanitarian and development NGOs to private contractors, each with very diverse missions, objectives, cultures, identities, principles, practices, resources and capabilities – makes this a particularly challenging undertaking. For instance, for humanitarian organisations, "*independence, impartiality and neutrality is the common denominator*" (Ref. [10]: 19); they distance themselves from politically-motivated activities, and differ significantly in their views on the use of force or in decision-making styles from, for example, military organisations [8].

Thus, one of the key preconditions for involving non-government actors in security and defence efforts is an ability to practise flexible, networked forms of interaction with them [1], [18], rather than trying to prod them into a hierarchical relationship and command them with top-down directives. It also requires a capacity to be selective in the kind of interaction that is pursued with these actors (e.g., only consultation and de-confliction of activities in the theatre of operations, or coordination and close collaboration). Government inter-agency operational and strategic headquarters need to ensure that the necessary infrastructure (e.g., non-classified communication networks and databases) is available to 'plug' trusted and relevant non-governmental actors into governmental processes, so as to be able to seamlessly exchange information, consult, coordinate and collaborate with these actors. Indeed, it may be necessary to consider and to construct ways to provide NGOs, whose independence and safety is maintained by not interacting with Other Governmental Departments (OGDs)/ Militaries, access to important information while maintaining, and being seen as maintaining their neutrality. In some cases of course this is what CIMIC units are to do. Still, there can still remain the perception by some that this conduit is still too military in nature, especially if CIMIC is, or is perceived to be only an instrument of the commander's intent and national power. Thus, perhaps the establishment of a mutually agreed-upon civilian hub that would pass that relevant info along to organisations whose safety depends on their independence and distance from the military.

3.5 AGENCY, TEAM AND INDIVIDUAL LEVEL CONSIDERATIONS

Many prerequisites for a successful WoG lie within the agencies themselves and may require efforts to make internal reforms and adjustments. The type and nature of a particular mission, however, will strongly determine how those agencies define themselves and conduct their business. As Jennings (Ref. [15]: 91) explains,

"*differences stem from competing institutional mandates, missions, legal and resources constraints, as well as culture, mind-set, strategic outlook and expectant time horizons*".

Miani (Ref. [20]; 13-14) distinguishes between process-oriented organisations and goal oriented organisations. More specifically process-oriented organisations refer to those such as a diplomatic service for which operations 'can never truly end' and there are in any case no perfect solutions, only sub-optimal outcomes; thus they see little need to engage in thorough planning. Goal-oriented organisations on the other hand refer to those such as the military, whose "*operations are divided into discrete events that have identifiable start and end points*" and where optimal outcomes can be defined, along with detailed plans to achieve them. In a similar vein, cultural differences flowing from the nature of mission exist between the civilian agencies (intelligence, law enforcement, rescue, etc.).

3.5.1 Agency Characteristics

Cultural differences can be even more difficult to address than structural or legal obstacles. Agencies which succeed in the WoG and WoS setting, despite the above differences identified by Miani, are usually distinguished by the following key characteristics:

- Ability to identify other actors of importance to their mission or to particular tasks [24], [14].
- Good understanding of those actors: their missions, responsibilities, cultures, motives, goals, working practices, resources, capabilities, comparative advantages, weaknesses and strengths, as well as their added value in resolving various security issues. Conversely, they also are cognisant of which of their own capabilities and resources are relevant to the missions and tasks of other actors, as well as the circumstances in and the means by which they can be provided [4], [27], [2], [18], [13], [14], [11].
- Understanding of the tangible benefits of cooperation, coordination and collaboration with those actors (i.e., they recognise existing interdependencies), as well as the costs and limits of those interactions. The latter are particular pertinent as regards the involvement of various non-governmental actors, some of whom do not wish to be seen as adjuncts to the government [1], [3].
- Having the internal arrangements necessary to interact with external actors (clear points of contact; binding exchange procedures; flexible command and control, enabling quick plug-in by other organisations; shared 'lessons learned' databases, etc.) [4], [24], [17], [14].
- Dedicating sufficient resources for WoG and WoS-related interactions, and especially for training together with other agencies [30], [11].
- Promotion and support by senior leadership of "*atmospheres where the spirit of cooperation, collaboration and teamwork is encouraged, and where the negative effects of suspicion, infighting, and self-interested agendas are eliminated*" (Ref. [3]: 9).

These characteristics allow agencies to act as 'smart customers' of services provided by other agencies, and to be 'smart providers' of their own services to other agencies.

3.5.2 Team Characteristics

Once inter-agency 'working groups', 'task forces' or 'issue-based units' have been formed to advance a comprehensive security agenda, the success of a WoG to a large extent rests on the dynamics within these teams. The main factors facilitating their work – be it at the strategic, operational or tactical level – include:

- Shared assumptions and understanding of the task or problem at hand, the team objectives, the mix of available tools and competences, and the impact of the team's outcomes on the overall strategy [15], [16], [17], [18].
- Unified language (terminology), formats and style of communication [4]. As Caslen and Louson (Ref. [3]: 12) articulate, "*introducing a common language for interagency efforts would help eliminate the confusion associated with the various terminologies unique to each agency*".
- Ability of a team to harness the unavoidable frictions between its members from diverse backgrounds: "*While often perceived as an indicator of failure, confrontation and friction among organisations may well be signs that a genuinely comprehensive approach is at work*" (Ref. [1]: 42).
- Nuanced peer-leadership style [2] rather than the hierarchical, top-down, commander-centric approach inherent to military organisations. As Schnaubelt (Ref. [27]: 66) observes, "*civilian leaders will typically expect to be treated as equals rather than subordinate to the military commander*". This is especially important in teams whose participants include non-governmental stakeholders, who do not appreciate a 'command and control' approach and need to be persuaded rather than ordered to contribute or coordinate.
- For operational and tactical inter-agency teams, common team training is considered to be essential [11], to the point that it is desirable that operational teams are drawn from the same people who trained together (a natural order of things for mobilised military reservists, but somehow not for civil-military teams). For strategic-level inter-agency teams, a common educational background (e.g., from inter-agency courses and programmes) and mutual awareness training is very important.
- Shared physical space [14], [13]. The rise of technological means enabling virtual collaboration over distances is very beneficial in terms of cultivating 'communities of practice' to share knowledge across organisational boundaries. However, teams working within a shared physical space perform better in terms of congruence of effort, communication and coordination effectiveness, etc. Thus, as Hallett and Thorngren (Ref. [13]: 45) put it, "*the main question in facilities related CA capability development is 'Do our facilities make interaction easier, or create additional barriers to interaction?'*". In general the conclusion in this area is that whenever possible teams should at least begin their interactions with face to face encounters before becoming exclusively distributed and virtual, since face-to-face meetings are important to create a common ground and shared meaning [22], [32].

3.5.3 Individual Characteristics

Success in the CA setting is also shaped by factors even at the individual level. Indeed individual-level factors will account for more of the variance in outcomes in contexts that do not have established and common procedures and practices [7], such as largely been the case in WoG/CA missions. This is a reality worth taking into account by organisations (such as parliamentary committees) which have a role in selecting, vetting and appointing individuals for key positions crucial to implementing comprehensive security and defence strategies and cross-cutting policies. CA requires at least a core cadre of highly knowledgeable, goal-oriented and diplomatic individuals in the right places and at the right time. Such individuals should possess and continuously demonstrate:

- A 'generalist' profile and an ability to move and work between different agencies. In some countries, there has been a talk of creating a pool of 'national security professionals' [1] with a 'comprehensive' mind-set and skills (i.e., possessing a holistic view of the national security system and positive attitudes towards collaboration) [2].

- Ability to appreciate and handle differences in the professional cultures represented in the inter-agency teams [26].
- Agility, adaptivity and ability to see trends and opportunities emerging in a complex strategic, operational and tactical environment [3].
- Highly developed interpersonal skills and ability to connect and build relations with other stakeholders. As Caslen and Loudon (Ref. [3]: 11) put it, 'partnerships are defined by value of mutual benefit, developed by interpersonal skills'.
- Negotiation, persuasion and indirect influence skills, which are necessary to build consensus and shape the outcomes of multi-stakeholder interactions in a way that does not antagonise the various actors important to a particular mission or to the overall security and defence strategy [16].

People who have these qualities are called 'boundary spanners' in the organisational literature [6].

As such individuals do not appear overnight, governments have to invest significant resources, time and sustained effort to build professional education, development, advancement and evaluation programmes and personnel rotation systems which promote and reward the above traits. As Lacquement (Ref. [16]: 10) writes, "*a key approach is to do more to educate the leaders of both communities [civilian and military – T.J.] to be better prepared for … complex security challenges. Among the means that can help accomplish this are education, training, development, and assignment policies that do more to share the relevant expertise of civilian and military leaders across their respective domains' and '… to ensure that the ranks of civilian and military leaders include generalists who can make such complex operations work*".

Culture shifts, fundamental organisational changes and behavioural models supporting WoG and WoS cannot emerge without human resources that are nurtured and managed in the spirit of collaboration. This is perhaps the most important lesson which governments pursuing comprehensive, integrated solutions to contemporary security challenges have often failed to heed.

3.6 CONCLUSIONS

Acknowledging the multi-dimensional and dynamic nature of contemporary security and defence entails accepting that effective solutions to national security challenges cannot come from separate organisations, or even Nations. This applies equally to activities at the stages of threat prevention, active counter-activities and the management of consequences. The same logic also extends to complex emergencies or crises, to wars, and to operations on home soil and abroad. The national agencies responsible for managing the various aspects of security have to reach out beyond their organisational and national boundaries in order to succeed. Concerted efforts by governmental, non-governmental (including the private sector and the academia), inter-governmental and supra-national actors are often the key to resolving national, regional and global security issues.

Even when the management of a particular mission falls within the area of responsibility of a particular single organisation, its resources might not be sufficient to cope with adverse circumstances. This would necessitate the marshalling of the resources of other organisations – be they governmental, public or private, foreign (Allied) or national. Thus, WoG and WoS imperatives are particularly strong in small states, both in the case of large-scale emergencies or crises and in wartime contexts that go beyond security issues. For instance, in Canadian relief or evacuation missions, the military, specifically the Disaster Assistance Response Team (DART) is often called in to provide support that is not necessarily security-based (provide transport, medical personnel, etc.) [5].

In turn, the success of a comprehensive and integrated response to complex national security challenges rests on the ability of the involved actors to cooperate, coordinate and collaborate. The particular choice of the form of interaction is context-specific – it depends on the particular contingency, its demands, and the character of the organisations which are responsible for managing it or can add value to this effort. It is clear, though, that many general conditions must be in place in order for those interactions to succeed. These conditions span the national, governmental, single organisation and even team and individual levels.

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Chapter 4 – INTER-AGENCY TRUST: A DESCRIPTIVE MODEL AND APPLICATION TO COLLABORATION IN COMPREHENSIVE APPROACH MISSIONS[1]

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CANADA

4.1 INTRODUCTION

Trust has been identified as a critical enabler of effective collaboration in Comprehensive Approach (CA) missions [12], [10], [27]. Still, there has been little additional discussion concerning the specifics of trust in an inter-agency or comprehensive approach context. This means that beyond a quick acknowledgement that there actually is little understanding concerning what trust means and how trust facilitates collaboration in a comprehensive approach context. On a more practical level, this means that there is virtually no guidance as to how inter-agency trust may be achieved or maintained within CA teams, and little attention to the factors that can enhance or undermine trust.

The purpose of the present chapter is to address this gap. I begin by defining and describing trust, how it develops and discussing the various ways in which trust benefits collaboration. I then present a conceptual model of inter-agency trust, based on the work and conceptual model of Robert, Dennis, and Hung [24]. The objective of this chapter and the conceptual framework is to better illustrate key trust-relevant concepts and their interrelation to increase an understanding of the dynamics of trust as they can apply to the CA context.

4.1.1 Trust: What is it and How does it Develop?

Trust is the degree to which we are willing to rely on another (i.e., an individual, group or organisation) to provide something important to us when we require it, even though we cannot compel them to do so. Made up of both beliefs (because it is an assessment) and emotions (because it is associated with feelings of confidence and security), trust is essentially our best estimate regarding the future behaviour and motives of others. The decision to trust another will become a more important and central concern as the level of interdependence with others grows and as the importance of and the risk, uncertainty and ambiguity of a situation increases [13], [16], [18].

Certainly, these features are entirely consistent with the conditions that inter-agency teams who must collaborate in CA missions. First, the objectives associated with CA are often beyond the capabilities of a single organisation. Thus by definition, inter-agency partners must be interdependent, relying on each other to provide resources important to them and to overall mission success. Second, importance, complexity and risk are the hallmarks of conditions that characterize the environments that require a CA response [30]. Third, the separate lines of reporting, authority, responsibility and command within the different contributing organisations often means that members have little control over, and cannot guarantee the behaviour of, personnel from different agencies.

According to Mayer *et al*. [18] we decide to trust another person, group or organisation based upon our perceptions their trustworthiness, i.e., their:

[1] This chapter is a condensed version of the Defence Research and Development Canada Scientific Report entitled "A Conceptual Model to Understand Interagency Trust" (DRDC-RDDC-2015-R148) [28].

1) *Competence* (i.e., technical skill, training or ability level);
2) *Benevolence* (genuine and unselfish concern for others);
3) *Integrity* (common values, principles or ethics); and/or
4) *Predictability* (behavioural consistency)[2].

These dimensions can be positively related to each other, for instance where a skilled colleague also shows genuine care for others (high competence and high benevolence). Yet the dimensions are considered to be distinct. This allows for instances in which someone can be highly competent but also be quite selfish (high competence but low benevolence). The dimensions that are most important at any given time can depend on the specifics of the situation, meaning that who we trust may differ depending on the situation we find ourselves in. Consistent with this premise, people who participated in CA missions have noted that their assessments of their inter-agency counterparts often centred on perceived competence level, but also at times on the perceived benevolence and integrity of the members of other agencies (or even of the agencies themselves) (e.g., see Ref. [31]).

There are two different schools of thought concerning how trust develops. For instance, one school of thought suggests that trust develops over the course of repeated experience and so will always begin at a neutral level, as we have no information on which to base our trust. Others must demonstrate their trustworthiness to us over time [13], [14], [18], [23]. However, another school of thought, stemming from the study of trust in organisational settings suggests that under the right conditions, even initial trust levels can often be fairly positive. In these cases, a level of trust is granted, as long as there is no evidence suggesting that the other is untrustworthy [19].

Whether trust begins at neutral level or is at least somewhat positive, two types of trust are used early on in the absence of any personal knowledge of the other. *Calculus-based trust* is based largely on 'what is in it for me'. We trust when the rewards of trusting outweigh the risks. In addition, because we usually have little direct and distinct knowledge of others initially, our initial trust assessments can be often heavily influenced by the most available, noticeable aspects that the unknown other appears to represent, called *category-based trust*. We use these categories to make an assumption of the integrity, competence, benevolence and/or predictability of the unknown individual.[3] While a focus on obvious categories can speed up decision whether to trust or not, it is important to note that some of the most initially noticeable categories may actually have little to do with the other's actual level of trustworthiness. For instance the young age of some civilians in the mission space can belie their level of experience or seniority in their home organisation while uniforms can sometimes suggest a range of attitudes that may not be warranted to civilians who are novices to inter-agency setting.

Also speaking to initial trust, Meyerson, Weick, & Kramer [21] introduced the term '*swift trust*' to describe a special type of category-based trust that could sometimes occur in teams of strangers who nonetheless acted 'as if' high trust existed. They argued that swift trust could occur in new teams if each member's role within the team is clear, understood and deemed important to task completion by each member of the team. Indeed, it is each member's very assignment to the team that is used as a proxy for evidence that they are qualified and motivated to make effective contributions to the team [21] (see Ref. [29] for an in-depth discussion of swift trust and its application to CA teams).

Over time direct interaction between people provides more specific information about the others. In these cases, trust becomes *knowledge-based*, which allows us to start making more informed predictions about that

[2] Note that many theorists have dropped the predictability dimension.

[3] Recommendations by trusted colleagues of unknown others also constitute category-based trust.

individual's motives and future behaviour. Where such direct knowledge also leads to the development of an understanding and an appreciation of the other's underlying goals, attitudes, beliefs and values, a more intrinsic (i.e., satisfying in and of itself) interest in the well-being and concerns of the other can occur and is termed *relation-based trust* (e.g., when colleagues or acquaintances become friends). Finally, if commonly-held, important beliefs and values are revealed, team members can develop a shared group identity or collective mentality. This is *identification-based trust*, in which people feel comfortable acting on each other's behalf, fully confident that each understands the other's needs and that each person's priorities and interests will be protected by the other [16].

These differing bases of trust are quite pertinent to inter-agency teams. For instance, research has indicated the influence of stereotypes in civil-military interactions and how these beliefs were initially incorrect and had to be overcome by close interaction and collaboration [35] (see also Ref. [31]). In many cases inter-agency team members may be strangers to one another; they may be called together to work on a critical mission that with little notice and for only a short period of time. This means that there is simply no time for a cycle of gradually increasing risk-taking and reward [13], [14], [18], [23]. In such circumstances the dynamics of calculus and category-based trust will predominate, and trust may well be focused more on the tangible benefits versus the risks of trusting and/or on the most salient categories that suggest the trustworthiness of the other. Moreover, in those cases where members' roles within the team are understood and the contributions to the team outcome are appreciated, it is possible that swift trust can occur.

In some cases inter-agency teams may continue with the same membership over longer periods, a situation consistent with the time and circumstances conducive to knowledge-based trust, and, depending on the positivity of the experiences, possibly to relation- and identification-based trust. It is likely that both categories and direct knowledge will play roles in the development of inter-agency trust. In fact, Stephenson and Schnitzer [27] have discussed how category and knowledge-based trust can facilitate each other in these settings.

> "*Organization reputation and perceived professional competence trump personal relationships in the absence of such knowledge, but personal knowledge, when it exists, may be critical to decisions to extend trust and therefore to cooperate across organization lines. … [W]orkers may be sceptical or even jaundiced about a specific organization, but if they believe their counterpart there is competent and trustworthy, they are likely to agree to coordinate anyway. These relationships are self-reinforcing; good reputations and experience in one theater make it more likely that harmonization of activities will occur in future scenarios, a sort of self-fulfilling prophecy*" (p. 219).

Situational factors and context are important in trust assessments. The relative importance of the bases of trust (e.g., external versus internal benefits versus risks), the dimensions on which trust is based (i.e., competence, benevolence, integrity, predictability) and of the role of beliefs versus emotions in trust are dependent on the nature and/or stage (early vs. established) of a relationship, and/or the nature of the specific situation encountered (e.g., does the context requires technical skill vs. genuine care and concern).

4.1.2 How Trust Promotes Effective Collaboration

High trust increases effective collaboration in a number of ways that are relevant to inter-agency teams in CA missions. First, trust provides important cognitive and emotional benefits to each individual in the inter-agency team. For instance, high trust reduces uncertainty and doubt and the perceived risk, increasing the perceived control in a situation. This means that trust allows team members to focus on the task at hand, rather than using valuable time as well as cognitive and attentional resources monitoring the actions of others or in interpreting their behaviour and motives of others to ensure that their own needs and priorities are being met (referred to as defensive monitoring, see Ref. [6]). This means that higher levels of trust are also associated with less perceived

stress at the individual level [3], [36]. Finally, research also shows that high trust is related to increased job empowerment, satisfaction, commitment and performance in workers [5], [9] (see also Ref. [7]), creating a more positive environment that again allows greater cooperation and task focus.

High trust also reduces the likelihood of conflict. First the positive effects of trust mean that minor problems are less likely to be noticed. Similarly even if a minor issue is noticed trust means that people are more likely to give interpret each other's ambiguous actions in a constructive manner that supports the stability of the relationship [33], [37]. Should a more significant problem occur, higher trust means that people's responses are less intense or more limited in scope and they are more likely to give the other the benefit of the doubt [25], [1].

When trust exists between groups and organisations there are increased efforts to reach out across organisational boundaries [27]. High trust also promotes greater group cohesion [7], [17], [36]. Because high trust is associated with increased concern about the welfare and outcomes of the overall group, there is less likelihood of vulnerabilities being exploited [18], [4]. Importantly, given the quickly evolving situations that often characterize an inter-agency mission, high trust is associated with information sharing [38], an acknowledged key to better team performance [20], with creative and productive problem solving [2], and with developing mutually beneficial, integrative solutions [34]. Indeed, particularly valuable in a crisis or when unforeseen circumstances arise, high trust maintains honest and open communication, and leads to the sharing of scarce resources [15]. Also critical given the often discrepant organisational cultures and processes that occur in an inter-agency context, trust: "*... encourages partners to be aware of the processes and procedures that each partner follows [11]. Thus, trust encourages partners to remain flexible when managing their interface in the face of interdependence. ... Under high interdependence, inter-organisational trust is therefore essential ... as it facilitates mutual adjustment and allows the smoother synchronization of critical tasks.*" (Ref. [15], p. 896).

Finally, trust means that there is also less emphasis on the "*formalization of organisational controls and protections and on the establishing and monitoring costly sanctioning mechanisms*" (Ref. [32], p. 4). Important to the collaboration philosophy that underpins CA, high trust between partner organisations keeps authority and decision-making structures decentralized and these organisations are more likely to be comprised of self-managed teams [5], [9].

4.2 A MODEL OF INTER-AGENCY TRUST

As the introduction to this chapter makes clear, trust is a complex phenomenon. In order to provide a more concrete depiction of trust and to add more clarity and structure to discussions of trust, some researchers have developed conceptual models of trust (e.g., Ref. [18]). In particular, Robert *et al*. [24] developed a conceptual model to describe trust in newly formed and distributed, computer-networked teams. While their model is relatively straightforward, it focuses specifically on describing the effects of communication environment (i.e., face-to-face versus computer-mediation) on assessments of trust. Moreover, their conceptual model reflects a snapshot in time, rather than the development of trust. Still, the model provides an excellent foundation, and I sought to adapt their model by first integrating it with more of the relevant trust literature and second, by adapting the model to be more applicable to the issue of trust development in the context of inter-agency teams.

The model of inter-agency trust is presented in Figure 4-1 and includes both the names of variables and brief descriptions of most variables.

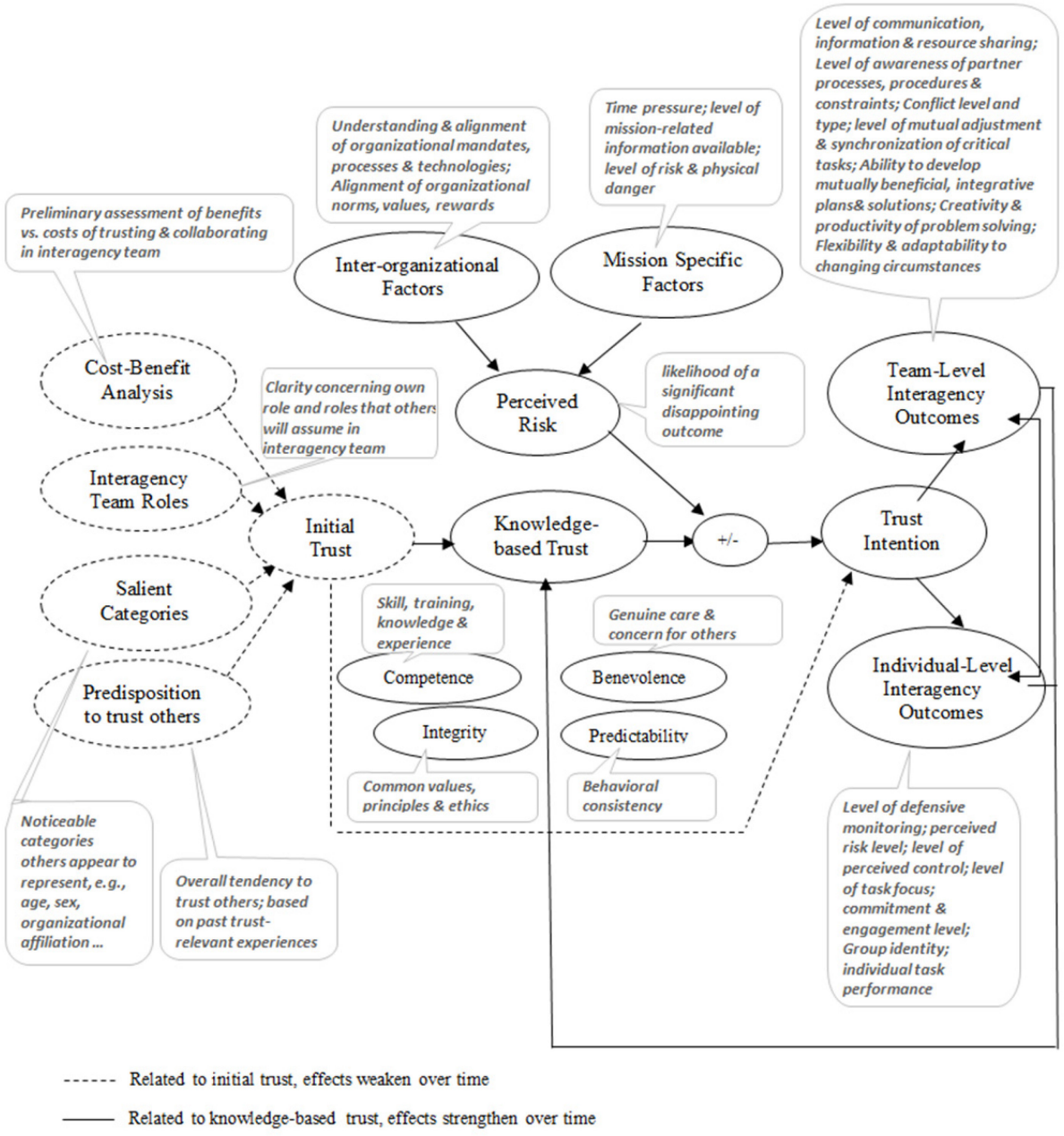

Figure 4-1: An Annotated Model of Inter-Agency Trust for Comprehensive Approach Missions.

This model assumes that there will be little if any past direct experience among inter-agency team members. As a result, the early stages of initial trust, depicted on the far left-hand side of Figure 4-1, are consistent with discussions of trust that focus on initial contact between people from different organisations. Initial trust is comprised of some combination of four main variables, two of which are drawn directly from the model of Robert and colleagues. These are *predisposition to trust* which refers to an individual's general tendency to trust others that reflects past trust-relevant experiences. Where those past experiences have tended to reward trusting others, predisposition to trust will be higher; if a person's past experiences have been marked by betrayal,

predisposition to trust will be lower. The second variable drawn from the work of Robert and colleagues [24] is *salient categories.* These refer to the most quickly and obviously apparent categories that at least seem to characterize an unknown other, for instance age, sex, organisational affiliation. As noted earlier in this chapter, while these categories increase the speed at which we make a decision to trust someone or not, these categories may not actually be relevant to the other person's actual trustworthiness. Thus, salient categories can lead to negative stereotypes in which our distrust of others is not warranted – or, in some cases, to overly positive stereotypes which can lead to our trust being misplaced.

The trust literature suggests that at least two other variables also will be important to initial trust levels and I have included these as well in the revised model. The first reflects the important influence of calculus-based trust in initial interactions and refers to the perceived *costs versus the benefits* of trust others in the inter-agency team. The second additional variable is *team roles* and reflects aspects of the swift trust literature mentioned in the introduction of this chapter. More specifically, this variable speaks to issue of whether a person's own role within the team and the roles of other inter-agency team members are clear and seen to be important to the completion of the task. Some combination of these four factors, predisposition to trust, salient categories, cost-benefits and team roles will affect initial trust levels of inter-agency team members, which are essentially quick, short hand assessments of another's trustworthiness and our degree of initial trust in them.

Finally it is important to note that the variables and processes associated with initial trust are depicted by dotted lines in Figure 4-1. Not only does this serve to distinguish variables associated with initial trust from those of knowledge-based trust, but is also used to denote the fact that research has demonstrated that the effects of these variables of initial trust tend to decrease with continued direct experience.

The middle portion of the model reflects the development of knowledge-trust. That is, although affected by initial trust levels, repeated experience with other individuals and other organisations provide an accumulation of direct evidence concerning their *Competence* (skills and abilities), *Integrity* (adherence to common and valued principles), *Benevolence* (genuine and selfless care and concern for others) and *Predictability* (consistency of behaviours).

Direct experience will also provide valuable information about which dimensions are the most important given the current situation. As the middle portion of Figure 4-1 indicates, other features of the specific situation remain important in making more lasting trust assessments. To better reflect the added complexity of inter-agency missions I term as '*Inter-organisational factors'* which refers to things such as the degree to which processes and technologies across the various contributing are incompatible and the clarity and or diversity of social rules, norms and rewards that characterize the various CA agencies and departments that are to collaborate in a CA context. Where appropriate behaviours, norms and rules are overt, clear, understood and shared, behaviours are largely proscribed and issues of trust are not as relevant. As norms, rules, roles, etc., become less clear, trust shapes the explanations we ascribe another's somewhat ambiguous actions and intentions. Where another's behaviour is unexpected and potentially negative, trust will affect the extent to which the other might be given the benefit of the doubt versus ascribing negative intent to their ambiguous actions. Finally where cues and norms are weakest, trust is assumed to have direct effects on the extent to which cooperation, information and resource sharing will occur [8] (see Ref. [30]).

The CA literature supports the importance of such inter-organisational factors as research has documented inter-agency team members' confusion and frustration over these very issues. Team members have also reported the impact on them of ambiguous or conflicting lines of reporting and a lack of shared experiences, both perceived as undermining the efficacy and efficiency of inter-agency communications and coordination [22], [31].

In addition, *mission specific factors* that will play a role here, such as government priority given to and public awareness and pressure concerning the mission, time pressure, level of mission-related information available, and level of physical danger to inter-agency team members, etc.

Together these inter-organisational and mission specific factors combine to produce the *perceived risk* in the situation, where risk is defined as "*likelihood of a significant disappointing outcome*" (Ref. [24], p. 248). Consistent with the original model of Robert *et al*. [24], Figure 4-1 illustrates that it is the *difference* between perceived risk and knowledge-based trust that will predict actual trusting behaviours and/or *intentions to trust* in the future. That is, when our belief in the trustworthiness of others is higher than the perceived risk in the situation we will tend to trust others and engage in trustworthy behaviours. However, this specification means that there may be other cases where the risks in the situation can be so high that we may be more reluctant to engage in trusting behaviours – even if we feel the others are trustworthy individuals. The model demonstrates the potential for initial trust assessments to play some role in subsequent trust, although normally the effects of initial trust will lessen over time as we interact with others more.

Trust-relevant outcomes at two levels are indicated on the far right hand side of Figure 4-1. *Team-based Outcomes* include:

- Level of information and resources sharing;
- Level of overall communication and proactive communication (i.e., providing useful information before it is requested);
- Level of awareness of partner process, procedures and constraints, conflict level, cohesion level; and
- Level of mutual adjustment, synchronization of critical tasks, ability to develop integrative, mutually beneficial solutions, flexibility to changing circumstances.

Also following from the trust literature *individual-level outcomes* include:

- Level of uncertainty, doubt;
- Level of defensive monitoring;
- Perceived risk level;
- Level of perceived control; and
- Level of task focus and engagement.

The higher the level of inter-agency trust, the higher the level of each of the team- and member-level outcomes are expected, save for conflict levels. In this case, lower levels of interpersonal conflict are anticipated to be associated with higher trust levels. Here conflict does occur, high trust teams should be characterized by task-focused rather than interpersonal disagreements and conflicts. In addition, higher trust teams should be able to resolve such task-related differences with mutually beneficial and/or acceptable decisions.

Also consistent with the larger trust literature, a mutually reinforcing feedback loop is depicted as existing between team- and member-level outcomes. Also reflecting the on-going nature of trust, Figure 4-1 also allows for an important feedback loop from team- and individual-level outcomes back to perceptions of integrity, benevolence and competence, further influencing the degree of knowledge-based trust that exists, which will interact with degree of risk, and so on (see Refs. [18] and [13]).

4.3 SUMMARY

Traditional trust theory and research was integrated with findings from the inter-agency literature, including interviews of Canadian civilian and military personnel who have participated at tactical, operational and strategic levels in CA missions in various theatres of operation, were used to inform a conceptual model of inter-agency trust. The intent of this model is to make discussions of trust more tangible and concrete in order to better understand the dynamics of trust and how it can improve effective collaboration in comprehensive approach missions. Based on the important work of Robert *et al*. [24], the current model presented has been adapted to better reflect the developmental nature of initial and subsequent trust specific to inter-agency contexts, the different factors that influence each, as well as a more definitive specification of the types of outcomes that should occur as a result. In doing do, the hope is that it retains all of the positive aspects of the original Robert *et al.* model, while being more useful to an inter-agency context.

4.4 CONCLUSION

The concept of the Comprehensive Approach to operations emerged rapidly in response to a new and challenging complexity in contemporary operational space. The focus of the discussion at its introduction was on its enormous benefits and it quickly became enthusiastically embraced. There was, however, remarkably little attention or effort devoted to the question of *how* CA would work or be put into effect – and the devil is in the details. Indeed, perhaps this combination of high expectations with less attention to details made it somewhat inevitable that some level of disillusionment and cynicism would result when the challenges associated with the actual implementation of CA were revealed. Still, it is important not to throw the baby out with the bathwater. Complex operations are expected to be the norm in the future security environment [26]. Similarly, inter-agency missions remain a clearly articulated part of many governments' national and international policies.

CA is not a panacea. It will not guarantee success – there are often too many environmental factors that are out of the control of inter-agency teams in the complex and rapidly evolving missions in which CA is applied. Nonetheless, it currently remains the best hope to navigate the often byzantine demands of the future security environment.

In seeking to operationalize and institutionalize CA it is important to begin with a firm grasp of the underlying philosophy that is critical to its success. "*It is not an approach that attempts to define the roles of the various actors, but rather to understand the actors and improve mechanisms for coherence (or as a minimum a de-confliction) of actions*" (Ref. [26], p. 76). … "*Sometimes [CA players] will work with a multitude of actors, and at times simply need to understand the interactions and interests of all those in the arena*" (Ref. [26], p. 85). Simms makes two important points here. First, CA is based on understanding of others who may, or may not share all of your own goals and priorities. Second, CA must be approached as an inherently flexible construct in order to maximize its utility.

By definition, CA missions involve multiple, and often diverse agencies and organisations. By nature, CA missions involve at least moderate levels of risk, complexity and ambiguity. Where interdependence, complexity, ambiguity and risk are features of the operating environment, trust has a role to play. Indeed, the strategic and tactical importance of inter-agency missions coupled with the potential levels of danger and personal risk that contributors can be asked to assume make trust a particularly compelling concern in CA. Inter-organisational factors that add to this complexity and ambiguity such as differences in mandates, priorities, organisational culture and even language and terminology are not merely sources of inconvenience and frustration but rather can contribute to increased complexity, ambiguity and doubt, and can be significant barriers to inter-agency trust and operational effectiveness. On the other hand, even in the face of such barriers,

the existence of high trust will mean that members of different organisations are motivated to work through this their differences, coming to a better mutual understanding of each other's perspectives, skills, requirements and constraints. Hence, the courses of action developed will be more integrative and important synergies and creative solutions will be more likely to emerge. Where there is the potential for conflict, its impact will be more limited and less likely to be carried into future interactions. Trust then is an integral human dimension enabler of inter-agency understanding and/or collaboration and, in turn, significantly enhancing CA operational effectiveness.

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Chapter 5 – COLLABORATION IN COMPREHENSIVE APPROACH EXERCISES: EMPIRICAL FINDINGS

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5.1 INTRODUCTION

Earlier chapters of this report have discussed the array of challenges that are associated with comprehensive approach missions. Integrated training has been suggested as one important way to mitigate some of the challenges that can hinder the success of collaboration in comprehensive missions [23], [24], [25], [26], [27]. For instance, Jenny [23] asserts:

> "*Training should be thought of as one of the most important factors for the success of future [interagency] actions. … Indeed, training is arguably the best way to foster understanding … As such it significantly helps in bridging the culture gap and in fostering mutual respect. This in turn facilitates a clear division of labour and helps create channels of communication which will prove of great help should any possible misunderstanding arise during the mission.*" (Ref. [23], p. 31).

However, inter-agency training is complex to plan and to execute, expensive to undertake, and, especially for civilian agencies that do not have a tradition of ongoing intensive operational training, necessarily draws personnel away from the important, on-going tasks that comprise their day-to-day jobs for the duration of the training [28]. Perhaps for all of these reasons, few opportunities for inter-agency training have traditionally existed [29]. Just as importantly, the various increased costs associated with inter-agency often have been associated with a reluctance of the various agencies to commit to concerted and consistent inter-agency training opportunities. These are all substantive and relevant concerns. Thus, a case needs to be made and substantiated empirically justifies the investment of these kinds of resources. For instance, it is imperative that when such training is undertaken, that it clearly meets the training needs of personnel from all participating organisations and that it results in improvements in the knowledge and/or ability of the organisations to be able to collaborate effectively when working together. This chapter begins to address this issue: we summarize the empirical findings derived and observations noted across the research studies we have conducted in various civil-military exercises and training events in the Netherlands and Canada.

5.2 NETHERLANDS – CIVIL-MILITARY EXERCISES

5.2.1 Overview

Since 2010, the First German-Netherlands Corps (1GNC) has organised scenario-based exercises that explicitly include a civil dimension executed by civil subject-matter experts (role players) and/or by actual civil organisations. The involvement of civil organisations varied over the years, with a high in the landmark exercise 'Common Effort' in 2011 and the recent 'Common Effort 2015' exercise held in Berlin. Since 2011, the Netherlands Ministry of Foreign Affairs (NL MFA) and Dutch and German IO/NGOs have been involved in the design and execution of these exercises.

Since 2010, a small team of TNO and University of Groningen scientists, occasionally with additional subject-matter experts, has been have been observing and evaluating civil-military interaction, in particular in 1GNC

exercises such as Nemesis Sword (2010), Common Effort (2011), Peregrine Sword (2012), Odyssey Sword, (2012), Reliable Sword (2014), and most recently Common Effort (2015). This unique opportunity came when the leadership of 1GNC wanted to have more systematic and well-based support in the development of the staff in the comprehensive approach, and in particular with respect to civil-military interaction. This allowed us to directly observe and interact with all parties at all levels and do assessments (survey) with direct feedback to the Commander and briefings to the audience.

The 1GNC's drive to initiate such joint civil-military exercises was a vision based on operational experience: specifically that the thinking and the actions of the military needed to better align and integrate with other measures and instruments of stability and change (Corps Vision 2010). For the NL MFA, civil-military exercises are an opportunity to train their personnel in a political advisory role to a military commander. In addition, building civil-military cooperation is in line with the implementation strategy of the integrated approach to peace, security, development and rule of law in which governmental departments work together or consult each other and consult nongovernmental agencies. Similarly, the exercise learning objectives, of participating International organisations / Non-Governmental organisations (IO/NGOs) have also expressed a general interest in influencing the military to take better (their) civil perspectives into account in the military decision-making and planning. In addition, IOs/NGOs have expressed a desire to learn (more) about military structures and decision-making processes and about other civil organisations as well.

The exercises have developed over the years and have reflected civil-military interactions in a range of operational contexts, e.g., stabilisation and humanitarian scenario's, single or multiple locations of the military and civil participating parties. A constant factor in these exercises were the interactions − in situation assessments, threat analyses, and decision-making − concerning the interdependencies and effects of military, diplomatic, developmental, and humanitarian actions. The scientific focus of the observations and measurements was on boundary spanning antecedents and behaviours of the military and civil participants. Detailed measurements were taken in the first four exercises, but general observations and lessons learned will be discussed also.

5.2.2 Exercise Common Effort (2011)[1]

At the end of 2010 a project called 'Common Effort' (CE) was proposed by the 1st German-Netherlands Corps and the Ministries of Foreign Affairs of Germany and The Netherlands. The project's objective was to develop and exercise a structured, civil-military collaborative process to enhance a comprehensive approach for crisis operations. In particular, the idea was to begin to build this collaborative process with civil partners in the preparation phase of the exercise, as reflected in the Project Common Effort motto: "We believe cooperation should start before we meet abroad in a crisis."

During the 10-month preparation phase we functioned as observers in the inter-agency working groups meetings, and meetings such as Conflict Assessment and Planning meetings and additional leaders' synchronization meetings. Our team took notes during these meetings with the purpose to provide feedback on the comprehensiveness of the HQ 1GNC. No specific observation scheme was applied at the time, but specific attention was given to the structure and process of the meetings, and communications on objectives, working procedures, meaning, misunderstanding and conflict resolution. During the subsequent 4-day exercise data was collected using observations, interviews, and a questionnaire.

A conceptual model was developed based on the literature on cooperation between teams and organisations: the Inter-Team/Agency Cooperation model [13]. From the model an assessment instrument was developed

[1] This is a condensed version of Essens [13].

(questionnaire). The questionnaires were handed out to all participants individually on the fore-last day of the exercise and collected on the last day. Numbers handed out and received back were noted.

On the basis of the literature and own research on collaboration within and between teams of diverse organisations [14], [15], [16] we developed a specific set of factors thought to address the essential aspects of collaboration in a comprehensive approach. Accordingly, in the context of interdependent tasks and actions, individual members of work teams need to put effort in coordinating, synchronizing, and aligning tasks and actions with other teams in the collective. These behaviours are referred to as 'boundary spanning'. The importance of these behaviours has been shown for own team performance, as well as for the collective performance of the interdependent teams, the latter constituting boundary spanning per se. Promoting such behaviours and setting the right conditions for it to develop, is seen as an important step in developing effective collaboration. The selected conditions or antecedents will be shown in the model.

Figure 5-1 provides an overview of these factors, including the factor items of processes and outcomes. Explanation is given where we present the results.

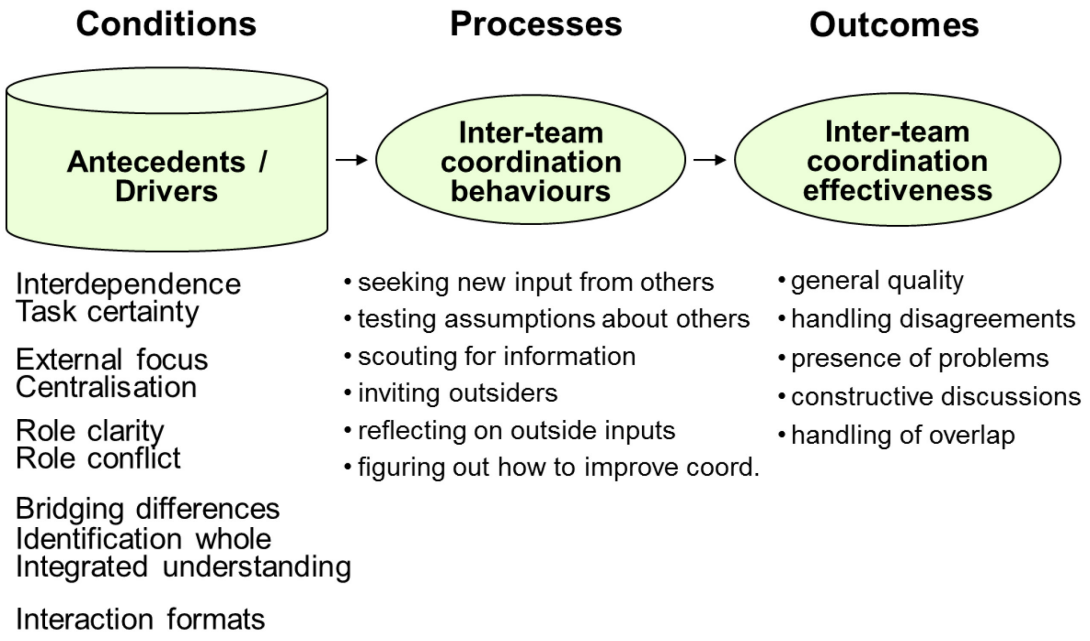

Figure 5-1: Common Effort Inter-Team Cooperation Model.

With a questionnaire based on the inter-team cooperation model depicted above, we collected the assessments and judgments of the participants of Common Effort. Of the 190 questionnaires 121 were returned completed (64%). The response was distributed over fifteen civil organisations and fourteen military (sub)sections (n = 47; 73, resp.). Statistical tests indicated that there were no group differences between civil or military responses on inter-team cooperation. Thus, we present the results in two views: Low vs. High scores, and Strong factors contributing to coordination effectiveness.

The clustering in Low vs. High score groups was s done as follows. Scores were given by respondents on a 7-point scale ranging from low to high, representing answers categories such as 'not at all (a score of 1) to 'to a great extent' (7) or 'strongly disagree' (1) to 'strongly agree' (7). We assumed that the middle of the scale meant

the respondent was undecided. We clustered the so-called 'low' scores (1 – 3), and 'high' scores (range needed). Clustering in Low vs. High clusters also including a 'Mid' category reflecting scores of 5 to more easily present for lay audiences the trends in the respondents' assessments and how consistency they are in that. In Table 5-1, high-low scores are shown for the model-based measures. Table 5-2 shows high-low scores separately for the interaction format or type.

Table 5-1: High-Low Scores for the Inter-Team Cooperation Factors.

Factors	Relative Score*		
	%Low	%Mid	%High
Conditions			
Inter-team interdependence	15	14	71
Task certainty	50	28	22
External focus	12	17	71
Centralization	52	28	20
Individual Role clarity	15	19	66
Individual Role conflict	57	34	9
Bridging differences	6	17	77
Identification whole	30	22	48
Integrated understanding	33	36	31
Processes			
Inter-team coordination behaviours	16	44	40
Outcomes			
Inter-team coordination effectiveness	29	26	45

* On a 7-point scale low is 1 – 3; mid is 4; high is 5 – 7.

Table 5-2: High-Low Scores for the Individual Interaction Format Items.

Factor Interaction formats	Relative Score*		
	%Low	%Mid	%High
Through informal communication channels	27	10	63
Through formally or informally understood policies and procedures	28	13	59
Through pre-planned coordination meetings	34	12	54
Through pre-determined plans or schedules	41	20	39
Through a leader who acted as coordinator	50	11	39
Through a formally designated coordinator/liaison	53	15	32
Through an ad hoc group for resolving coordination issues	51	12	37

* On a 7-point scale low is 1 – 3; mid is 4; high is 5 – 7.

5.2.2.1 Conditions

Inter-team interdependence assesses how strongly teams are dependent of the input of other teams in order to complete the work properly. A low score would mean that there seems to be no need to coordinate. Task certainty assesses how much the task relies on routines, and clearly defined knowledge, with clearly defined outcomes. The low-score is relatively strong (50%) indicating that the tasks require a high degree of problem solving, which stressed the importance of consultation with others to reduced uncertainty. External focus measures how much active emphasizes by the leadership is given to engagement by the team in productive, external relationship with other teams (e.g., exchanging information, building relationships, acquiring knowledge from others, coordinate actions The high score (71%) given, indicated that there was indeed a strong orientation to constructive engagement with other teams in Common Effort. Centralisation assesses how much reporting to the leader and requirement for leader approval I was required to start coordination activities. The strong low score (52%) here meant that participants reported having substantial latitude to organise coordination on own initiative.

Individual role clarity refers to how well one's role in the CA team was explained and what one's contribution was to be, what one's priorities and responsibilities were, and what resources are available. The questions on this factor specifically address the role of the individual in the team (different from the roles of the organisations in the exercise mentioned under Observations). As Table 5-1 also reveals, participants reported that their roles in the team were quite clear (high score of 66%). Individual role conflict refers to the receiving of conflicting requests, or work tasks with changing rules and procedures. There was a strong low score on this (57%), indicating that individuals did not report conflict within his or her role. Bridging differences assesses the individual's orientation and attitude toward other teams and agencies (such as learn more about others, educate others about own organisation own). The High-score of 77% indicated that there was a strong positive orientation towards learning about other organisations.

Integrated understanding refers to the knowledge one has about the other teams, such as procedures and policies used, the roles that other members have, and the goals they aim for. *Interestingly, responses were relatively evenly distributed across the Low, Mid and High groups,* with only 31% gave a high-score, which means that interaction with other parties may be less effective, because of lack of knowledge about others. Organisational Identification askes how strong one feels to be part of the whole enterprise which we hypothesised to be a strong motivator for thinking beyond own team borders. The score on this factor was relatively low (48%) with about one third (30%) of the respondents reporting little or no identification with Common Effort as a whole.

5.2.2.2 Processes

Inter-team coordination behaviours reflect the team's effort put into coordination and interacting (e.g., inviting and listening to other parties, seeking information from others). 40% of the respondents fell into the high group, indicating their agreement with the statements indicating that effort was put into the inter-team coordination behaviours, while 16% indicated that little effort had been devoted to inter-team coordination. It is also of note however, that there was a relatively large portion of mid-scores, which is difficult to interpret, either there was only a moderate effort directed toward these behaviours or they were indecisive or they just did not know.

5.2.2.3 Outcomes

The inter-team coordination effectiveness factor reflects respondents perceptions of how well coordination between the own team and other teams was during the exercise (e.g., no problems in coordinating; disagreements settled quickly; constructive discussions). As Table 5-1 shows, 45% of the respondents scores fell into the high

score group, indicating that they perceived that inter-team coordination was effective, while 29% of the responses fell into the low group, and an about equal sample fell in the mid group. Benchmark data from industry (standing organisations) show similar figures [17].

Interaction formats or coordination mechanisms with other teams refer to the rules and procedures or structures that are set up to organise coordination between the teams. In Table 5-2 the formats are listed with their scores, ordered from high to low on the high-scores. It can be seen that informal communication channels, that using informal means of contact (i.e., other simply contacting others) rather than the variety of more formal means, is the strongest in the high-scores. Note also that communicating through a liaison person received a relatively low score as a means utilized to communicate with others during Common Effort.

5.2.3 Across-Exercises Assessment [20]

As mentioned above we conducted survey studies during Nemesis Sword (2010), Common Effort (2011), Odyssey Sword (2011), and Peregrine Sword (2013). During each of these exercises, we asked participants to complete a questionnaire on the conditions and processes that may promote coordination. We used validated survey instruments to measure coordination conditions. Participants were further asked to indicate which other groups they had worked with during the exercises, which provided an indication of their engagement in coordination. Subsequently, we used statistical multiple regressions to test for relationships between coordination conditions and members' engagement in coordination. Note that we changed the label 'outcomes' to 'output' taking into account that in operational context outcomes are usually refer to longer effects, which does not match well with the exercise context where we cannot assess longer-term effects of coordination and cooperation. Analyses are therefore addressing the conditions, processes, and output factors.

First, it must be noted that we could not find evidence for a direct relationship between the coordination conditions and processes, nor could any direct relationship be established between coordination conditions and coordination. This indicates that the conditions and processes that generally promote coordination within traditional organisations, do not necessarily promote coordination during missions in a direct manner. On the contrary, coordination appeared to be more complex during the exercises and, correspondingly, cannot be promoted by any single condition or process. Hence, we explored how conditions and processes may reinforce each other's effect and jointly promote coordination in a more interactive and complex manner. To identify which combinations of conditions and processes may most effectively promote coordination during missions, we relied on multiple regression analyses and searched for statistically significant interaction relationships. The model that resulted from these analyses is shown in Figure 5-2.

The model depicted in Figure 5-2 points towards a more nuanced and comprehensive view regarding how coordination during these exercises. Specifically, the model seeks to identify the processes and outcomes, and the interactions among them that together enable coordination. We next discuss the main findings of this model, beginning by briefly summarizing the key factors as mentioned under 'conditions' and 'processes'.

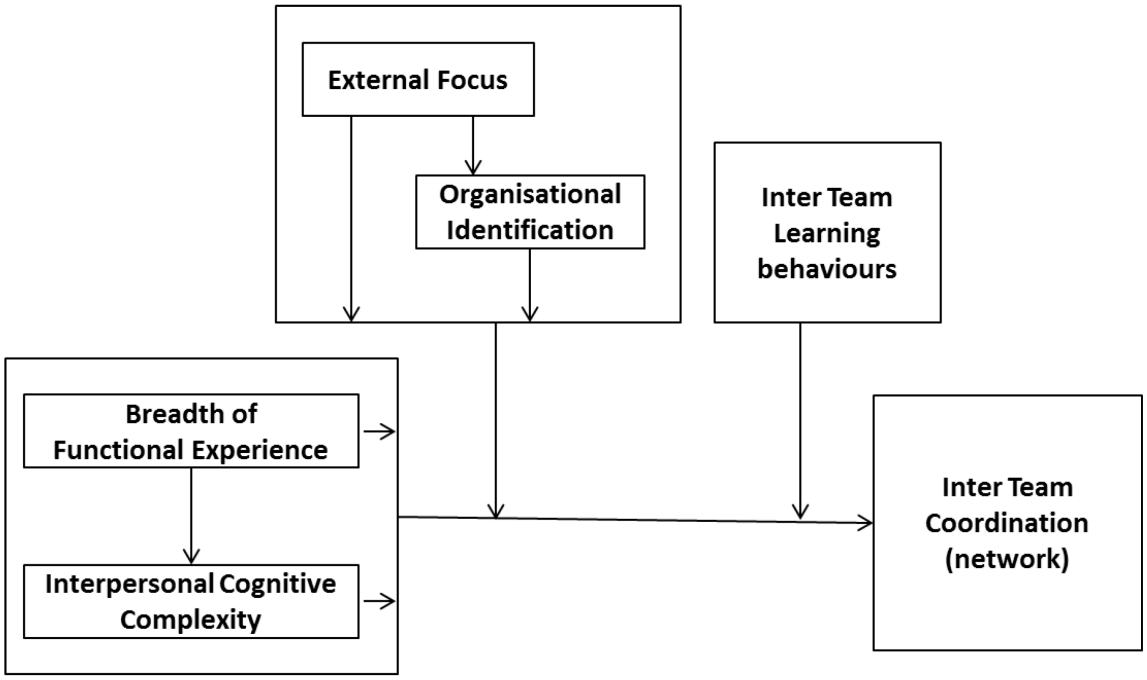

Figure 5-2: Significant Factors of Inter-Team Coordination (see text for description).

5.2.3.1 Conditions

Organisational identification refers to the degree to which participants perceive being affiliated to the broader collective [18], [19]. Accordingly when organisational identification is high, participants attach personal relevance to realizing the goals of the coalition and, consequently, experience failures and successes of the coalition as their own failures and successes. Such identification is potentially important, because it motivates members to exert extra effort at realizing coalitions' collective goals.

Cognitive complexity is a socio-cognitive capacity that refers to individuals' proficiency at assessing and responding to novel social situations [20]. In the current context of a CA coalition, cognitively complex individuals can more quickly understand another person or group in terms of his/her or their goals, working methods, and interests. Accordingly, cognitive complex persons can adjust his or her working methods and actions to a broad range of diverse persons.

Breadth of functional experience indicates whether members are broad functional generalists, with experience dispersed across multiple functional domains such as logistics, planning, management, etc. (high breadth of functional experience), or, alternatively, narrow functional specialists with only experience in a single functional domain (low breadth of functional experience) [20]. Broad functional generalists are likely to have experienced many different functional disciplines and, consequently, developed a broad frame of reference. This broad frame of reference may enable members to understand and interact with external members from different groups with different areas of expertise. Hence, breadth of functional experience may promote coordination.

External focus is defined as a leadership condition that indicates whether a group's formal leader emphasizes the importance and value of building and maintaining relationships with other groups in the coalition [30]. External focus may reinforce a climate for coordinating work.

5.2.3.2 Processes

With regard to processes, *inter-team learning processes* has proven to be an important factor in the actual coordination in missions. The inter-team learning process is defined as a team-level process that refers to groups' actions to include external group members in their internal processes (adjusted from Edmondson's [21] intra-team learning concept). Such actions include actively inviting members of other groups to test implicit assumptions about how to execute tasks, asking for feedback from external group members, and engaging in private, off-line discussions to resolve potential conflicts between groups.

When reviewing the results, we can conclude that breadth of functional experience is a particularly important condition for promoting coordination between groups during missions. It seems that breadth of functional experiences provides members with the diverse backgrounds needed for interacting and coordinating with other groups from diverse organisations. Such experience may enable members to understand the working methods, goals, and technology of other groups and, subsequently, to take such elements into account when coordinating work. At the same time, breadth of functional experience is not sufficient to promote coordination in a reliable and consistent manner. Indeed, two additional conditions determined whether members would actually draw from their broad backgrounds to align and synchronize task-related issues across group boundaries. These conditions include external focus and organisational identification.

In addition, as shown in the picture, inter-team learning processes reinforced the positive effects of breadth of functional experience on coordination. Hence, processes (i.e., inter-team learning) seemed to moderate rather than mediate the relationship between conditions (i.e., breadth of functional experience) and output (i.e., coordination). We will discuss each of these factors in the following sections.

The first factor that determined whether broad functional generalists would *use* their capacities for coordination is the presence of inter-team learning processes. From our interaction analysis, it seemed that engaging in such team-level processes enabled broad functional generalists to realize coordination between their own group and other groups. Specifically, it seemed that broad functional generalists were motivated by inter-team learning processes to use their distinct coordination capacities for coordination. Members who lacked broad functional backgrounds were unaffected by inter-team learning activities. Hence, inter-team learning activities may enable groups to profit from their broad functional generalists members' capacities for coordination.

The second factor that motivated broad functional generalist to engage in coordination is external focus of the leaders in the collective. Our results indicate that an external focus by the leader motivates individual members to engage in coordination, provided they have the broad functional background to do so. Individuals that did not have a broad functional background remained largely unaffected by external focus: they neither increased nor decreased their level of coordination as external focus varied.

The final result of the interaction analysis provided information on why breadth of functional experience might be important for coordination. These analyses indicate that members with broad functional experiences developed advanced levels of cognitive complexity (i.e., the capacity to quickly understand novel social situations and diverse others). Apparently, members who had worked in diverse functional work settings had been exposed to many frame-braking experiences, which, subsequently, enabled them to enhance their cognitive complexity. Such cognitive complexity then enabled members to understand the working context and methods of external group members, even when they had never worked with these members before and had no prior knowledge of these persons' functional domains. Hence, cognitive complexity is essentially the reasons why breadth of functional experience might promote coordination.

We further found out that whether or not members were willing to use their cognitive complexity for coordination depended on their identification with the coalition. Members with high coalition identification attached personal relevance to the coalitions' success, which motivated them to contribute extra efforts towards realizing its collective goals. It appeared that one prime way through which members were willing to contribute to collective goals was through engaging in coordination, provided they had the cognitive complexity to successfully engage in such activities. Importantly, we also found that members' level of coalition identification is positively related to external focus. Thus, it appears that leaders' efforts to emphasize the importance of coordination (i.e., external focus) also directs members towards using their cognitive complexity for coordination purposes, albeit indirectly through increasing members' identification with the collective.

5.2.4 Summary of Findings

The overall conclusion that can be drawn from the findings of this across-exercises assessment is that coordination between groups from military, government, and nongovernment organisations cannot be promoted by any single condition factor or process. That is to say, promoting either breadth of functional experience, cognitive complexity, or coalition identification is insufficient to promote coordination during missions. Only when breadth of functional experience translates into cognitive complexity, will members develop a capacity for coordination. However, cognitive complexity is also not enough. Only when members also strongly identify with the coalition will they actually use this capacity for coordination purposes. Hence, leaders need to implement a complete "package" of interventions in order to motivate and enable members to engage in coordination.

5.3 CANADA

5.3.1 Overview

A team of Defence Research and Development Canada (DRDC) – Toronto Research Centre scientists were asked to investigate and assess the effects of integrated education and training between Canadian military and civilian governmental and non-governmental agency personnel in a variety of inter-agency training and education contexts. For instance, Exercise Maple Guardian was the final pre-deployment tactical-level field exercise for Canadian personnel deploying to Afghanistan. The Civil Military Seminar was also aimed at tactical-level personnel but was more of an educational activity that was not tied to any particular deployment. It did, however, represent an opportunity for members of the Canadian military, governmental agencies and Non-Governmental Organisation (NGO) communities to come together to learn more about each other's mandates and missions, and to practice working with each other in a short (4 hour) inter-agency humanitarian disaster scenario. Exercise Strategic Warrior was a strategic-level inter-agency exercise conducted as part of the Canadian Forces College (CFC) National Security Program (NSP), which prepares "*selected military, public service, international and private-sector leaders for future responsibilities within a complex and ambiguous global security environment.*"[2] We also investigated collaboration in the context of a final inter-agency planning conference for Exercise Frontier Sentinel 2012, which sought to "*to evaluate interagency planning and interoperability at the operational and tactical levels for the relevant maritime commands − United States Coast Guard Atlantic Area (LANTAREA), United States Fleet Forces (USFF), and Joint Task Force Atlantic (JTFA), the lead planning agent for EX FS12 − and other federal, state/provincial, and local government agencies*" (Ref. [3], p. 2).

These investigations focused on the perceptions of participants in the exercise or education event as assessed via self-report surveys. The procedure for each investigation was similar: At the beginning of the training or

[2] http://www.cfc.forces.gc.ca/242-eng.html, retrieved December 19, 2014.

education event a member of the research team was introduced to the training audience and outlined the general objectives of the study. After assuring members of the training audience that their participation would be voluntary, that their responses would be anonymous, and that they could skip questions or end their participation at any time, interested participants picked up the survey for completion and later return to the study representative.

In addition, the length of some of these training events afforded the opportunity for surveys to be administered at the beginning and at the end of training event. This allowed us to explore any changes in perceptions that occurred. In these cases the pre-training surveys were completed and returned to the study representative at the beginning of the study and the post-training survey was distributed, completed and returned at the end of the training event.[3]

5.3.2 Exercise Maple Guardian [9], [10]

Exercise Maple Guardian (EX MG) was a large Canadian Armed Forces (CAF) pre-deployment training activity that served as the final confirmation exercise for CAF Battle Groups that were about to deploy to Operation ATHENA, the Canadian combat mission in Afghanistan[4]. "*Conducted over 3 weeks, [under deployment field conditions], the exercise recreated an Afghan environment with a goal of providing as realistic an experience as possible for the training audience to practice the skills that they will be called upon to use in their upcoming deployment*" (Ref. [9], p. 5). Initiated in 2006, the first iterations of EX MG were devoted exclusively to the training needs of CAF members. However, adopting the inter-agency strategy endorsed by the Government of Canada, the CAF began to extend invitations to participate to the civilian organisations with whom they worked in the Afghanistan mission. As the personnel representing the Canadian Governmental Partners (CGP) were very new to this type of training, the goal of this research was to complement the traditional EX MG After Action Reviews (AARs), by systematically documenting the perceptions of members of CGP regarding the EX MG training experience in terms of two key elements of the comprehensive approach to operations – interactions with the military, and interactions with the local population (i.e., Afghan-Canadians role playing members of the local Afghan population).

Thirty-nine of the 59 members of Other Governmental Departments (OGD) who attended EX MG volunteered to complete the survey, including 11 from the Department of Foreign Affairs and International Trade (DFAIT), 14 from the Canadian International Development Agency (CIDA)[5], and 14 members of Civilian Police (CIVPOL) organisations. Descriptive results concerning the level of experience that OGD members had at the beginning of the EX, indicated that, on average, respondents reported some prior knowledge of the Afghan mission. OGD participants also indicated having 'slightly' to 'somewhat' more than a little prior knowledge of and contact with members of the CAF. Perhaps not surprisingly, the reported average level of prior contact with members of the Afghan population or "public" to date was quite limited and the mean score for the degree of prior knowledge of the Afghan people was slightly higher, reflecting a score midway between a 'little' and 'some' prior knowledge.

Across the course of EX MG, OGD participants generally reported a high level of contact with the CAF both during EX MG scenarios and more informally outside of the exercise scenarios, and rated EX MG as a valuable

[3] As required, all DRDC study materials, instructions and procedures in all of these studies were reviewed and approved by the DRDC Human Research Ethics Committee.

[4] http://www.army-armee.forces.gc.ca/en/news-publications/central-news-details-page-secondary-menu.page?doc=exercise-maple-resolve/hvoxx38p, retrieved December 19, 2014.

[5] These two government departments were combined in 2013, and are now referred to as Department of Foreign Affairs, Trade and Development (DFATD).

training experience, especially in terms of learning more about the CAF, how it operates and the individual CAF members with whom they would be working most closely when deployed. However, results revealed that participants indicated a lesser degree of contact with the Afghan role players (relative to CAF members) both during the exercise and in terms of informal interactions, and rated the training experience as somewhat less positive in terms of improving their ability to work with members of the Afghan population when deployed. The personnel who responded to the survey indicated that, on average, they felt that they had received few tools to work with members of the Afghan people and that EX MG had had only a little impact on their ability to interact with members of the Afghan population while deployed.

We also found that the greater the prior knowledge of the CAF the participants reported, the greater the perceived usefulness of EX MG as preparation for working with the CAF during a future deployment. Nonetheless, the higher the level of contact that the OGD members had with the CAF during EX MG scenarios, the greater the amount they felt they had learned about the CAF and the greater the perceived usefulness of the training for working with the CAF.

On the other hand, across all OGD participants the level of reported contact with the Afghan role players during the EX MG scenarios was, in general, *not* significantly associated with higher perceptions of training effectiveness, as had been the case for the CAF. However, those OGD trainees whose upcoming role would involve working more closely with the Afghan population (e.g., international development) rated the EX MG training as being more effective in terms of their ability to work with members of the Afghan population than did individuals who would be working in governance capacities, while the average for the those working in policing fell between the ratings of the development and the governance groups. Moreover, individuals working in development and policing capacities also had significantly higher ratings of the effectiveness of the tools/skills provided by EX MG to work with the Afghan public than did people who would be working in the area of governance.

Comments from the civilian participants were also quite revealing. They indicated that, overall, felt that they learned a great deal from the training exercise about the CAF's organisational structure, culture and planning processes, and that the training helped them to establish useful relationships with the CAF (and other) personnel with whom they would be working in theatre, although again they reported feeling that they had learned less regarding the Afghan culture and people.

Importantly, the civilian respondents recommended several ways to enhance the training. They advocated appropriate reading in materials in order to ensure ensuring adequate preparation of OGDs for the training itself. They also recommended incorporating more information about the roles and responsibilities of OGDs as well as Afghan culture and history into the training exercise, in order to provide the CAF with similar background information to improve their knowledge of their CAF partners and counterparts. Finally they also argued for engaging OGDs at an earlier stage in the exercise planning process. All of these recommendations are informative for future inter-agency training design.

5.3.3 Civil-Military Seminars I, II, III [8], [11]

Following the Government of Canada's (GoC) effort in Afghanistan, the Canadian Armed Forces (CAF) Formation Operations Centre of Excellence (Fmn Ops CoE)[6], and subsequently the Influence Activities Task Force (IATF) worked actively with organisations such as Assistant Deputy Minister (Policy) (ADM (Pol)), the Department of Peacekeeping Policy (DPK Pol), the Department of Foreign Affairs and International Trade

[6] Frm Ops CoE (renamed the Formation Training Group) is responsible for preparing Canadian formation headquarters to deploy on domestic or international missions (http://www.queensu.ca/kcis/partners.html, retrieved December 19, 2014).

(DFAIT), and the Canadian International Development Agency (CIDA), as well as the Policy Action Group on Emergency Response (PAGER)[7] to establish an opportunity for personnel from these diverse groups to continue to interact in a meaningful way.

One of the first results of these efforts was the development of a Civil- Military Seminar, the goal of which, at a minimum, was to provide a semi-structured forum that would lead to increased understanding and facilitate professional networks. To this end, and based on discussion with WoG (Whole of Government) and PAGER member organisations, the seminars were structured as a two-day activities. The first phase consisted of overview briefs by representatives of all attending organisations. The second phase involved breaking participants into different groups to work on a seminar exercise that involved the application of a CA to operations. In the final phase of the seminar involved the exercise groups reconvening to discuss their approach to addressing the seminar scenario and debriefing concerning the overall seminar experience.

In order to make the seminar financially feasible to civilian organisations (both governmental and non-governmental) who wished to send attendees, rations and quarters for the two days were provided free of charge at Canadian Forces Base (CFB) Kingston. All out-of-town participants stayed in quarters at CFB Kingston and had meals together, an approach which was designed to promote informal interaction and discussions outside of the formal seminar itself. As the results across the three Civil-Military Seminars, conducted in March and October 2011, and November 2012, respectively, were quite similar, the data was combined whenever possible.

5.3.3.1 Participants

Seventy-nine individuals (62 males, 16 females, 1 person did not indicate their sex)[8] attended one of three sessions or serials of the Civil-Military Seminar. Forty-three of the participants were CAF personnel, 26 were members of NGOs, 8 people were from other Canadian government departments (in these studies this group is termed Government Partners or GPs), and 2 individuals were from International Organisations (IOs). Due to the relatively small numbers of civilians representing NGOs, GPs and IOs, for the purposes of these analyses they are combined into a single 'Civilian' group. Table 5-3 shows the number of civilian and military respondents by Civil-Military Seminar serial.

Table 5-3: Number of Military and Civilian Respondents by Civil-Military Seminar Serial.

Civil-Military Seminar I:	10 civilian (NGO and GP) and 15 CAF respondents
Civil-Military Seminar II:	15 civilian (NGO/GP) and 13 CAF respondents
Civil-Military Seminar III:	11 civilian (NGO/GP); 10 CAF respondents

Across the three seminars, four of the civilians and 2 military personnel had no overseas deployment experience, 2 civilians and 12 military had deployed once, 2 civilians, 7 military had deployed twice and 17 civilians and 10 military had been on 3 or more overseas deployments.[9] Four military respondents indicated having previously

[7] PAGER is an informal, flexible and responsive forum of operational Canadian humanitarian agencies whose mandate involves responding to humanitarian emergencies worldwide. Its membership includes representatives from NGOs, International Organizations (IOs), CIDA and DFAIT. PAGER was created to fill a perceived gap between operational realities and policy making, and to promote greater information sharing and co-ordination between agencies concerned with humanitarian action. PAGER is the only forum to provide this interface in Canada.

[8] The participants averaged 40.33 years of age (age range 24 – 58 years).

[9] Two of the military respondents did not list the number of prior overseas deployments.

worked for one of the civilian organisations whereas two civilian respondents indicated having previously worked for the CAF. The majority of the civilians indicated that they had 'a little' prior interaction with the military in previous deployments, while on average the military respondents indicated that they had 'a great deal' of previous deployment interaction with members of NGOs/IOs/GPs.

5.3.3.2 Measures

Pre-Seminar Survey

The initial survey included a series of demographic questions that assessed respondents' age, gender. Previous overseas deployment experience which was assessed on a 5-point scale (1 = *not at all/none*; 2 = *a little*; 3 = *some/somewhat*; 4 = *a great deal*; 5 = extensive completely). Also assessed on the same 5-point scale were participants' self-reported familiarity with the CA in operations and indicators of inter-organisational trust (i.e., civilians provided assessments of the reliability, competence, and integrity of the military, and military personnel did the same for civilian organisations). Participants also defined the Comprehensive Approach to Operations in their own words and indicated the reasons why they were attending the seminar (i.e., to learn more about other organisations, supervisor instructed me to attend).

Post-Seminar Survey

The post-seminar survey included respondents' assessments of various aspects of the Civ-Mil Seminar, including extent to which:

1) The seminar provided sufficient information and contributed to their understanding of the other groups;
2) Their understanding of CA improved as a result of the seminar and their learning needs were met;
3) The seminar reflected the input of their organisation and took into account their organisation's approach (to planning, procedures, etc.);
4) The usefulness of scenario; and
5) Whether the seminar affected how they would interact with members of the other group in the future.

All questions included a 5-point response scale *(1 = not at all/none; 2 = a little; 3 = some/somewhat; 4 = a great deal; 5 = completely)*. Space was also provided for any comments on any aspect of respondents` experience. Pre- and Post-Seminar surveys linked by a participant generated identification code.

5.3.3.3 Procedure

In order to capture respondents' unbiased initial impressions, a short verbal introduction to the research covered general study aims and procedure, as well as the voluntary and confidential nature of the study was provided by one of the investigators, just after the initial welcome by the course coordinator and prior to any organisational briefings. Those who volunteered for the study filled out and returned the pre-seminar survey at that time, the first page of which reiterated the study aims, the voluntary and confidential nature of the responses and specific survey completion instructions.[10]

Once the pre-seminar surveys were collected, the Civil-Military Seminar began with an introduction and a series of information briefs on the background and objectives of each of the organisations of the seminar participants.

[10] The survey took approximately 10 – 15 minutes to complete.

Participants then broke into syndicates to work through an inter-agency disaster relief scenario which continued for the rest of the day and the morning of the second day. Then all attendees reconvened together for post-seminar surveys, post syndicate discussions and general debriefings concerning the overall seminar experience, prior to adjournment.

There were two changes to the procedures across the three serials, however. The first, based upon participant feedback, involved a modification to the structure of the disaster relief scenario. Specifically, in Serial 1, groups comprised of about equal numbers of civilians and military personnel worked through the scenario together. In the second serial, a group comprised primarily of NGO representatives worked through the civilian humanitarian aspects of the scenario together, calling for military input only as required[11]. The third serial was similar to the first in that participants were divided into two groups comprised of approximately equal numbers of civilians and military personnel. However, in this case the groups were constituted based on the UN cluster, to increase realism and to be consistent with the best practices of humanitarian and disaster relief. The cluster approach is a relatively recent evolution in the conduct of disaster relief and humanitarian missions that seek to improve coordination of the many organisations in the field according to "*the main sectors of humanitarian action, e.g., water, health and logistics*".[12] Accordingly, in the third Civ-Mil Seminar, after the organisational briefings, attendees were divided into two clusters to address the humanitarian scenario – a health cluster and a Water and Sanitation (WASH) cluster.

The remaining parts of the seminar were consistent across the three serials.

Second, the specific timing of the distribution of the post-surveys differed slightly. In Serials 1 and 2, the post-seminar surveys were completed and returned to one of the members of the study team prior to the syndicate groups presenting their approach to dealing with the EX scenario, and providing their general assessments of the seminar experience to the Civil-Military course coordinator and adjournment. In Serial 3, the post-survey was handed out and completed after the syndicates presented their scenario approaches, but before the general discussion of the seminar and adjournment.

5.3.3.4 Summary of Findings

In the main, the procedural differences variations across seminars did not affect the pattern of survey responses; thus to reduce redundancy, similar findings across the three seminars will be discussed together. Moreover, responses to questions are grouped according general themes. Only themes or results unique to one serial are discussed separately.[13]

Evaluation of the Civil-Military Seminar

Both CAF and civilian respondents had similar ratings of the seminar experience, with average ratings reaching or exceeding 4 out of a possible score of 5, thus indicating a strong positive endorsement of various aspects of the seminar, especially in the first and third serials. Average scores were somewhat lower in the second serial (3 out of a possible 5) as compared to the first and third seminars, with civilians averaging higher ratings than the military participants. However, these results make sense in light of the amended scenario structure adopted for this serial in which civilians were actively engaged in working through the scenario while the roles of the military personnel were less active and involved, limited to providing input to the civilians when asked.

[11] The intent here was to more closely replicate how these groups would interact in the field.

[12] http://www.humanitarianresponse.info/coordination/clusters/what-cluster-approach, Retrieved January 8, 2015.

[13] Only the major findings are summarized here. Interested readers can consult the initial reports referenced for more detailed statistical results.

Across the three serials, both civilian and military participants also felt that the seminar adequately reflected the input of their organisations and that their respective organisations' approach to planning, procedures, goals/ objectives, values, mandates/roles, communication style, and terminology were taken into account. All of these results are quite positive, especially as these are issues that members of civilian organisations often identify as friction points in their interactions with military personnel [1], [5] and they were issues that the seminar designers were particularly eager to address appropriately. Interestingly, there had also been some initial concern that the military hosting the seminar at a military establishment could be perceived by civilian attendees as an attempt to 'militarize' the seminar [5]. However, none of the results suggest that civilian participants felt significantly less valued than their military counterparts or co-opted by the seminar. Indeed, across the three serials, the responses of military and civilian participants generally indicated that the seminar was rated as being of great deal of use to both Civilian and Military respondents and provided a good learning opportunity.

Evaluation of the Humanitarian Scenario Format

The hypothetical humanitarian crisis scenario used during the seminar was rated quite positively by the seminar participants in the three iterations of the Civil-Military Seminar, but results also suggested that the format of the scenario portion of the seminar was important. For instance, the format in the second serial in which military personnel were only called on as needed by the civilians resulted in lower ratings of the scenario by the military respondents. The results of the third seminar showed that participants perceived the change in format to a cluster approach as being a useful, particularly for civilian participants. Participants in each of the two clusters felt that their cluster group was effective at achieving situational awareness and sharing information, that civilians and military personnel had distinct roles and functions in their cluster, and that group members in each cluster cooperated and made collaborative decisions collaboratively. These findings were consistent across both the Health and WASH clusters and for both civilian and CAF participants.

Changes in Perceptions of Other Organisations and Impact on Future Interactions

Importantly, both military and civilian participants indicated that their perceptions of the other group were somewhat changed by the seminar experience. Given that ratings of each other were quite positive, this suggests that the changes in overall perception of the other group were positive as well. Respondents also indicated that they felt that their participation in the seminar would affect their interactions on future deployments, and had facilitated their professional networks to some extent. These results are encouraging in that the seminar was only two days in duration.

Inter-Agency Trust

The third serial specifically assessed changes in perceptions of trust in the other agencies before and after the seminar experience. Results revealed that although the groups trusted each other, the civilians reported higher trust ratings of the military before and after the Civil-Mil Seminar than did the military of civilian organisations. Importantly, however, at the end of the seminar there was a significant increase in CAF ratings of civilian organisations in trust. These findings suggest that the seminar experience may help to facilitate inter-organisational trust, which is thought to be instrumental for the development and maintenance of collaborative relationships [4], [6], [7].

Definitions and Understanding of the Comprehensive Approach to Operations

Both CAF and civilian respondents reported that the seminar impacted their perception and understanding of the CA concept. This change in understanding was greater for civilian respondents, which is not surprising given

that civilian participants reported significantly less familiarity with the CA than military participants prior to the seminar.

The definitions of CA provided by participants varied, and many related concepts were offered such as WoG (Whole of Government), JIMP (Joint, Inter-agency, Multi-national, Public) and COIN (Counterinsurgency operations). However, as expected, most definitions involved coordination of planning or activities or collaboration across organisations toward a common goal or outcome.

Participant Comments and Recommendations

Participant comments tended to reflect the questionnaire findings, indicating that the seminar was a positive experience, and facilitated communication and understanding. Yet, over the three seminars, at least some civilian respondents felt less engaged in the planning process for the seminar compared to CAF participants. However, the civilian participants who were involved in the planning process for this seminar indicated that their involvement in preparation meetings/conference calls was beneficial and helped prepare them for the seminar. These findings underscore the importance for training planners to continue including NGO/OGD representatives in the planning process of inter-agency training as much as possible.

Participants also felt that the scenario exercise was important and could be expanded in scope and in terms of the types of inter-agency crises for a greater exploration of even more complex issues of civil-military engagement.

5.3.4 Exercise Strategic Warrior 12 [12]

The goal of this study was to extend our understanding of the effects of inter-agency training to the strategic-level by assessing the training evaluations of senior Canadian and international military and civilians from Canadian Government Departments who participated in Exercise Strategic Warrior 12, a strategic-level operational planning exercise that is part of the 10-month National Security Program (NSP) [14] at the Canadian Forces College in Toronto. Importantly for the present research, one of the goals of the NSP is to develop participants' capacity to design comprehensive national and multi-national campaign plans to generate strategic effects in complex security environments.[15] To this end, NSP students participate in a series of three WoG strategic planning exercises. The second of these planning exercises, Exercise (EX) Strategic Warrior, has a specific objective of "*an opportunity to practise the design and coordination of an element of national security strategy on an interdepartmental basis*"[16]. As such, EX Strategic Warrior offered a unique opportunity to assess aspects of strategic-level WoG planning training for CA missions.

5.3.4.1 Participants

Fifteen students (4 Civilian, 9 CAF, 2 Other Military) volunteered to complete an initial survey. Twenty-four volunteers (6 Civilian, 10 CAF, 8 Other Military) completed a post-EX survey.

[14] The NSP develops executive leadership skills in a senior cadre of students, specifically selected CAF and International Officers of the colonel or naval captain rank and senior public servants from a variety of Canadian Government departments and public security and non-governmental organizations and agencies and from academic institutions, including (but not limited to) the Department of Foreign Affairs, Trade and Development (DFATD), the Department of National Defence (DND) and the Royal Canadian Mounted Police (RCMP).

[15] Syllabus, Canadian Forces College (CFC), National Security Programme (NSP), 331-eng.pdf. http://www.google.ca/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=3&ved=0CCsQFjAC&url=http%3A%2F%2Fwww.cfc.forces.gc.ca%2FDP4%2FNSP%2FNSP6%2Fcfc700-eng.pdf&ei=owSwVObzHKjIsQSjtIH4Cw&usg=AFQjCNEiYCjC_MyhXoiBZ1nNX4-pWxZZOQ&bvm=bv.83339334, .cWc. Retrieved January 9, 2015.

[16] Syllabus, CFC, NSP, 1-8/9.

5.3.4.2 Procedure

Approximately one week prior to the EX, one of the study's investigators invited students of the EX to volunteer to complete a short paper-and-pencil survey (Survey I) modified to that reflected the specifics of EX Strategic Warrior. Survey I took approximately 5 minutes to complete and included demographic questions (e.g., home organisation) as well as questions about participants' previous WoG experiences (e.g., training/education and deployments, experience in strategic planning), and their level of understanding of CA. On the final day of the EX, the students were invited to complete a second paper-and-pencil survey. Survey II inquired about participants' experiences at the EX in terms of the opportunities afforded for information sharing, planning, coordination, and collaboration.

5.3.4.3 Summary of Findings

Results showed that at least some of the civilian and military participants had some prior experience with CA, either in operations or in training and educational settings. It is of note, however, that there was little evidence of actual inter-agency training or education in that the education and training was usually done for civilians or military personnel separately. This is important as this means that the CA exercises in the NSP represent among the first opportunities for true inter-agency training for those individuals who are moving into the senior levels of the civilian government and the military in Canada.

Moreover, all civilian and military respondents rated their understanding of CA at the time of the study as at least 'adequate', and the majority (7 of 15) rated their understanding of CA as 'very good'. Review of the definitions provided for CA indicated that those individuals who listed their understanding of CA as 'good' or 'very good' included notions of inter-agency or whole of government coordination and integration in their definitions. The definitions of those who indicated an 'adequate level of understanding, on the other hand, tended to refer to multiple agencies but were not as likely to refer to coordination or integration of these agencies or working toward a common strategic objective. It is also of note that three of the four civilian respondents rated their understanding of CA as 'very good' While positive news concerning students' perceived understanding of CA, these results are perhaps not surprising in that one of the objectives of the NSP is very much directed toward inter-agency and CA issues. Further, this EX and the accompanying questions assessing CA understanding were completed relatively late in the academic term. Nonetheless, these results do speak to the success of the NSP in terms of this training objective.

The majority of civilian and military respondents felt at least 'somewhat' prepared for the EX. They rated the most useful form of preparation as the reading package and documentation. However, 13 of the 24 post-EX respondents, including seven of the CAF members, indicated that they would have benefited from having more information on NATO and/or UN planning and decision-making processes prior to the EX. Civilians indicated that more specific learning objectives and EX outcomes and more information on campaign design would also have been useful preparation.

Both military and civilian respondents rated the team processes in their syndicate groups as being good during the EX itself, indicating that their syndicates communicated well, shared information freely, and were able to develop a common and unified approach to the strategic plan developed in the EX. Although certainly a positive outcome, it is of note that these individuals had been together for many months as the student cadre of the NSP and had already had considerable opportunities for team development and relationship building throughout the course. Results also indicated that most participants considered the EX to be a success and that they had access to the right tools and resources to develop a strategic plan. It is of note, however, that all civilian and most CAF members indicated some uncertainty as to their roles and responsibilities during the EX, suggesting an area for improvement in future serials of this EX.

The current data revealed that both military and civilian respondents tended to agree that the EX took into account their home organisation's approach to planning, procedures, goals and objectives, values, mandates or roles, communication styles, and terminology. However, the civilian respondents tended to be somewhat less positive in these assessments as compared to the military respondents.

Civilian respondents tended to indicate that their understanding of CA had developed as a result of participation in the EX, for instance, with respect to clarification of concepts and to a better understanding of the various organisations. On the other hand, many of the CAF respondents felt that their prior education and training was good preparation, and, while the EX allowed for reinforcement and practice of CA concepts, it did not improve their prior level of understanding of CA. This may well be because CA is a concept which many members of the CAF, especially those at the more senior levels, have been exposed to in other courses.

In general, all participants felt that participation in the EX was beneficial. In particular, 17 of the 24 respondents, although only three of the six civilian respondents (i.e., only 50%), felt that the EX had prepared them for future roles as senior leaders in a strategic, comprehensive context. Those who felt that the exercise was successful in this respect indicated that it gave them a better understanding of key considerations and strategic-level complexities and of the various chains of command.

Although only a few respondents provided suggestions for improvement for future iterations of EX Strategic Warrior, comments did include refining the deliverables, distributing a list of acronyms, and making better use of the senior mentors.

5.3.5 Exercise Frontier Sentinel 12 [3]

This study explored the effects of operational-level inter-agency interaction and collaboration in the context of planning for a large-scale bilateral, combined maritime exercise. Specifically, Exercise Frontier Sentinel 12 (EX FS12) was a combined U.S. Commander Second Fleet (C2F), Commander U.S. Coast Guard Atlantic Area (CAA), and CAF Joint Task Force Atlantic (JTFA) Full-Scale Exercise (FSE). The principal training audience for the exercise included the USCG, USFF, NORAD Northern Command (NORAD N-C), Canada Command (CANCOM), the Royal Canadian Mounted Police (RCMP), Canada Border Service Agency (CBSA), Correctional Service of Canada (CSC), Transport Canada (TC), the Department of Fisheries and Oceans (DFO), the Nova Scotia Department of Health and Welfare (NS Dept H&W), the Public Health Agency of Canada (PHAC), the Red Cross, JTFA Headquarters, and 4 Engineer Support Regiment (4 ESR). Representatives from many of these organisations attended the FPC that was the target of the current investigation.

5.3.5.1 Participants

Twenty-one participants volunteered for this study. 11 were civilians and 10 military personnel (seven from the CAF and three from the United States military, i.e., two from the United States Navy and one from the United States Coast Guard).

5.3.5.2 Procedure

The FPC was conducted in a meeting room at the Maritime Forces Atlantic (MARLANT) JTFA Headquarters Building in Halifax Nova Scotia. After an introduction, volunteers completed a 20-minute paper-and-pencil survey. Similar in content and format to those used in our prior research in inter-agency exercises and training events, the survey assessed participant perceptions of the Final Planning Conference (FPC) in terms of opportunities afforded for information sharing, planning, coordination, and collaboration to facilitate inter-

agency training requirements in EX FS12. In addition, this survey added an item in which participants were presented with a descriptor and brief definition of different levels of collaboration and asked to select the one that best described their experience in the FPC.

5.3.5.3 Summary of Findings

Overall, our survey results indicated that the FPC for EX FS12 was viewed positively by both military and civilian participants in terms of planning, information sharing, collaboration, and coordination. The vast majority of participants, both civilian and military, felt that they were well-prepared for the FPC and that the FPC was a success. Most felt that information sharing was adequate, that communication was good among the WoG team, that shared situational awareness was achieved, and that ideas were exchanged freely. Further, most participants felt that the CAF personnel attending the FPC were sufficiently aware of the roles, responsibilities, resources, and constraints of the civilian government organisations and vice versa, that the goals of the different organisations overlapped, and that the values of the different organisations were compatible. Similarly, most participants agreed that the planning processes of the military and civilian organisations were compatible, that emergency plans were complementary, and that participants were able to develop a common and unified approach to mission planning.

All participants agreed, at least to some extent, that the FPC took into account their respective organisation's procedures, goals and objectives, values, mandates or roles, and communication style. The majority of respondents agreed that their role and responsibilities were clear, that they felt that their participation and experience were valued, that their expertise was acknowledged, and that they were able to influence the decisions and actions of the WoG team. The majority of participants also agreed that the other organisations in the WoG team possessed characteristics that suggest trustworthiness, that is, the other WoG organisations were seen by respondents as competent, as motivated to facilitate the goals of the respondent's organisation, and as reliable.

In describing the extent of their organisation's collaboration within the WoG team, most participants chose the term 'coordinated', whereas a few participants chose the term 'cooperated', ' integrated', or 'informed', suggesting higher perceived levels closeness and collaboration. However, in some areas, military participants' assessments were slightly more positive than those of civilian participants (e.g., military participants were significantly more likely than civilian participants to report that their expertise and experience were valued, and that information sharing was adequate), although such differences must be interpreted with caution, given small sample sizes.

In addition, participants offered recommendations for training, education, and policy relevant to future iterations of the FPC. Some participants suggested ways to further enhance preparation for the FPC, such as having a common "place" (e.g., SharePoint portal or website) for sharing information (e.g., contact lists, common products, draft documents, and lists of acronyms) prior to the FPC, having an overall preparation session, and having opportunities for smaller meetings with specialized discussions prior to the FPC. Other recommendations included having greater knowledge of other government departments prior to the meeting, using smaller group sizes for meetings, and maintaining agreements and commitments (i.e., not changing these later in the process).

5.4 CONCLUSIONS

Overall the results associated with the studies from our two countries are consistent. Results from the Netherlands assessments of the 1GNC civil-military exercises indicate that stimulating learning behaviours and creating conditions that allow for boundary spanning behaviours with direct interaction, is very effective.

This should go together with the leadership stressing the importance of a comprehensive view and creating a collective identification that gives an orientation on the need for collective effectiveness which depends on own effectiveness and others effectiveness. This process works most effectively if the people who do this have broad experience in diverse functions and are used to deal with complex situations that will involve a high diversity of perspectives and working styles. Commanders should be aware that these factors substantially improve inter-organisational interactions and collaboration and use this in the design of their organisation and allocation of tasks.

Results across the various Canadian training settings, revealed that, despite the various logistical challenges and expense inherent in designing courses and exercises of this nature, these joint information sharing and training events can serve several important functions that can optimize the effectiveness and efficiency of interactions in CA. Our results indicate that activities such as these work to increase a needed awareness of the objectives, goals, responsibilities and constraints and the mandates of the various groups that will likely interact in a future mission or crisis. This in turn facilitates interaction and collaboration, reduces preconceptions of the other groups involved, and makes people more positive about their participation in current and in future inter-organisation missions. Indeed, such opportunities appeared to be particularly beneficial those participants, usually civilians, who had lower levels of prior contact with members from other departments and less prior experience in inter-organisation settings with respect to their perception of the CA and their understanding of, and relationship with, the military. Importantly, these results suggest that, consistent with the objectives of all training, that some degree prior inter-organisation training that addresses the requirements of all participants provides needed information and opportunities to have the experience of acquiring and developing knowledge, specific skills and/or appropriate attitudes [2], before the high stakes and pressure of operations.

The general positivity of these findings may seem to be at odds with a great deal of the qualitative literature concerning inter-organisation collaboration within a CA context that has detailed the many challenges and differences that often undermine inter-organisation interaction in CA. However, there is a very clear reason for these differences, at least in the Canadian studies. In most cases the civilian participants volunteered for the training or had a stated interest in finding out about CA. Similarly, the military personnel were drawn from military units whose mission is to interact and collaborate with civilian agencies. So there may well be selection and training and mission differences those who attended the seminar and wider random samples, of civilians and military who might interact in an operation. Moreover, these training opportunities were conducted under much less stressful circumstances than would often occur in a typical inter-organisation mission (e.g., time pressure, risk, changing requirements, ambiguous information, poor living conditions) from which most of the information concerning the challenges of CA are drawn. On the other hand, results were also quite positive from high intensity pre-deployment exercises like EX MG, arguably the closest to the conditions and stress of an actual inter-organisation mission.

The recommendations provided across these educational and training contexts also speaks to guiding principles that should be in place whenever inter-organisation training is undertaken. It is imperative that planning take involves all players with the scenario providing each organisation a real opportunity for training in their own right and as a team, not simply to support the training needs of other organisations. Also important are appropriate pre-seminar reading-in materials that provide an introduction to the other organisations and to the specific training scenario so that all participants feel equally prepared to contribute, engage as wide a range as possible of relevant civilian agencies, especially NGOs. One consistent recommendation across the Canadian training venues was the need to have an acronym list for all participants. Not only is this an important tool to increase communication and understanding, it is relatively easy to compile and provide. Indeed subsequent Canadian research has developed such an acronym list which has been enthusiastically evaluated by both CAF and Canadian OGD personnel [22].

A limitation of this current work is that it is largely based on perceptions of training participants and/or observers; for instance, we assessed participants understanding of others' roles, mandates and constraints and their predictions concerning their future interactions with other groups within a CA mission. On the other hand, while The Netherlands surveys asked more factually-based questions on which organisation they interacted with, and interactions over time, these too remain essentially self-reported perceptions. Still, such ratings must often suffice as, in general, a detailed and objective assessment of increased knowledge or increased coordination has been difficult to execute up to this point. In addition, self-reports of this nature are not without merit, as when honestly completed, they provide insight into the psychological view of the participant, a view that often colours interaction outcomes in very real and significant ways. Ideally, however, in addition to self-reports, we would like to incorporate more objective assessments of collaboration within the training/exercise environment itself, for instance by capturing interaction number, type and content that occurs either via observer assessment or via inserts into the software that inter-agency and inter-organisational teams use to communicate and plan, and/or follow-up with participants either in future scenario-based training, or during a deployment in a CA mission. Indeed, to date, we know of no study that linked prior inter-organisational training with specific interaction and coordination quantity or qualities during the course of a mission, and so this remains an important empirical question for future research. In Chapter 6 we propose how such a link might be established.

In spite of these caveats, the results from these various research studies have underscored the value of inter-organisation training in a variety of contexts including pre-deployment mission training (e.g., EX MG) and in more general educational and training contexts. Such research is crucial in order to improve the ability of government decision-makers to make evidence-based decisions concerning the utility of inter-organisation education, training and exercises that is based on systematic feedback from the people who do the jobs, to improve planning and training for these contexts, and thus to enhance the probability of the success of inter-organisation missions.

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Chapter 6 − INTEGRATING LESSONS LEARNED FROM THE FIELD: PREPARING FOR A COMPREHENSIVE APPROACH

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6.1 INTRODUCTION

The complexity of conditions in fragile states necessitates the input of a wide range of actors representing civil society organisations, governmental agencies and the military. A high level of coordination, communication and understanding of the respective roles, mandates and operational activities of these different organisations is needed to be effective at the mission level. Developing such understanding has shown to be complex in these operational situations [7], [8]. Similar issues arise in humanitarian operations where coordination and cooperation have also been shown to be problematic, in particularly in humanitarian crises in conflict zones [14]. Better preparation for complex situations has become focus of many organisations and governments in order to build effective collaboration in a comprehensive approach. At the same time at least some evaluations of civil-military cooperation in recent crises suggest that preparations are falling short [10].

One problem in preparations may be that exercises are insufficiently addressing learning to interact with other organisations – that is learning that goes beyond testing procedures, protocols and interoperability of systems. Indeed, for example, the UK government is very specific that emergency exercises "*have 3 main purposes: to validate plans (validation); to develop staff competencies and give them practice in carrying out their roles in the plans (training) to test well-established procedures (testing)*"[1]. Some confirmation of failure to learn collaboration skills comes from studies of emergency exercises that found that if something was learned at all, these were *intra*-organisational routines of the participating organisations rather than *inter*-organisational interaction skills [2], [3], [4]. While an emergency context differs from a mission context, our observations show that in particular the larger field military exercises have a similar focus on processes and procedures. Even in the exercises organised by the First German Netherlands Corps where not only a military process is trained but also the interaction and collaboration with civil organisations to achieve a Comprehensive Approach (see Chapter 5) we have observed a focus on *organising* the interaction, and less on building rapport and insight in other parties' perspectives.

The conclusion seems to be that exercises should be more explicitly designed for learning to interact and collaborate with other organisations. In this chapter I will integrate the lessons that TNO researchers have learned from the exercises we studied and present some new ideas on what is needed for building a solid basis for realising a Comprehensive Approach for complex missions. First I present the drivers behind a development to design a new exercise paradigm, describe this new paradigm, and complete this with an evaluation of its first implementation in 2015. Then I present a proposal for possible further development of this paradigm to a next level of maturity of integrated knowledge development and continuous learning across organisations.

[1] https://www.gov.uk/guidance/emergency-planning-and-preparedness-exercises-and-training, Accessed 22 March 2016.

6.2 TOWARD A NEW APPROACH FOR CIVIL-MILITARY EXERCISES

6.2.1 Lessons Learned

As was described in Chapter 5, since 2010 the First German-Netherlands Corps (1GNC) organised scenario-based exercises that explicitly include a civil dimension executed by civil subject-matter experts and actual civil organisations. From the comments of the participating organisations mentioned in after-action reviews and our observations over the years we noticed a trend of reduced participation of civil organisations to these exercises. These can be summarized in four main factors:

- Civil organisations, being active in their daily operations, have a problem with the effort (time and manpower) needed for adequate preparation (scripting) and participation in the exercises that often last for two weeks.
- Adding civil story lines to military-driven scenario's proved to be difficult and civil parties felt as 'add-ons' rather than operating on equal footing.
- The civil experts present at the exercise felt that their breath of strategic and operational expertise was hardly used beyond the scripted interactions, which seemed a lost opportunity.
- The recurrence of the same issues in the successive after-action reviews showed that there was insufficient learning and building upon earlier experiences.

Despite these negative factors in the reviews civil parties stressed the importance of improving civil-military interaction. The question was then how to turn this trend around and find new and improved ways to exercise civil and military interaction.

6.2.2 Guidelines for Exercises Focused on Intensive Interaction

Additional discussions with civil organisations led to the following guidelines:

- Involvement of personnel from real organisations rather than role players adds value in learning to interact and collaborate and in building relationships.
- Direct interaction and working together in a joint purpose environment reduces prejudice and stereotypes and facilitates building understanding.
- Exercise scenarios and dilemmas are best based on real and actual scenarios that match as closely as possible strategic interests and current operational projects of the participating organisations.
- Exercises should be short to minimize time costs and resources, but long enough to develop shared understanding of mutual differences in principles and position, also in operational details.

This line of development of exercises requires a different mode of exercise that focuses on the development of understanding (learning) and thinking in shared contexts, rather than necessarily re-creating the realism of an operational setting. This approach is built on several related concepts *(inter)active learning* [15], *cooperative learning* [12] and *situational learning* [13]. In the context of complex operational situations, intensive interaction between members of different organisations who jointly solve context-specific dilemmas is essential. In particular, such learning is not directed to the learning of processes and skills, but rather is directed to building the understanding the diversity of perspectives and the role each organisation has in the collective of operational actors. By sharing interpretations and assumptions with each other and reflecting on it, with no right or wrong, a broader and more complete picture of reality is being built with an understanding of the relationships between the different views and practices.

The core of this new approach that is based on mutual learning and understanding is to focus on enabling intensive interaction between parties. This can be best realised in exercises that are *short, rich, relevant and inclusive*:

- **Short**; because most civilian organisations have little time to prepare themselves thoroughly and cannot be away from their regular work for extended periods. Nonetheless exercises must be long enough to achieve the depth of interaction that is necessary for an effective learning result. For the participants preparing for the exercise should take as little time as possible (most preparation documents are not read anyway, is our experience).
- **Rich**; meaning that frequent and intense interaction between the present experts and organisations should occur, interactions that specifically include sufficient diversity of perspectives and multiple decision levels. Where applicable, additional expert presentations and high-quality discussions on operational experiences and new (strategic) developments will significantly add value for the participants.
- **Relevant**; referring to the use of realistic, concrete scenarios, e.g., a case study approach, based on actual events, close to the (potential) practice of the participants, rather than completely fictional scenarios that are developed by or focus primarily on the training needs of one organisation. A link with operational practices is important; at the same time it is not about finding 'the' or 'a' best way to address the specific problem at the expense of all else. Rather, it is all about interactions building an understanding of the diverse perspectives. This means that the focus of exercise development is not about procedures, but rather about interaction and the building of shared understanding. To avoid (political) sensitivities in working on a current operational situation, it is recommended that a situation from the recent past (which could be months or a year earlier) be used as the scenario, so that the statements of participants are not interpreted as official positions in a current situation. However, the sensitivities of contributing organisations must be kept in mind. Moreover, depending on the training audience, additional features may need to be added to the scenario, for instance adding a police role to a mission mandate, so that all (or most) participating organisations can have an active role and their contributions, etc., can be understood. Finally, the scenario must provide sufficient guidance for all parties to be challenged and to continually working actively to interact towards a clearly-defined outcome.
- **Inclusive**; meaning that developing such exercises requires the involvement of all parties, rather than role players, while guarding the balance of minimal effort and maximum relevance and inclusiveness of the diverse interests. Our experience suggests that organising such development processes, meetings and communications is best facilitated by an independent party with good connections and support by all parties, military and civil, and being accountable to these parties. For instance, some NGOs are sensitive to military in the lead and also is there the well-known difference between military and civil organisations in how to prepare and plan for such an exercise (summarized as, detailed how versus what and why, respectively). Once a solid relationship and trust have developed a high level of willingness to engage others can overcome such obstacles a great deal.

These principles were the basis for a renewed discussion with German and Dutch NGO's and governmental agencies to get their their commitment to collectively develop these principles into a new exercise paradigm, with the civil organisation and military in a balanced lead specification of the exercise objectives, the realistic scenario and interaction conditions of the exercise. In the next section we discuss the first implementation of this paradigm.

6.3 OPERATIONALISATION OF THE NEW APPROACH

The new exercise set-up was applied in the Common Effort 2015 exercise, Berlin May 2015 [6]. The collective of the exercise comprised a diversity of organisations and participants: Military officers not only from 1GNC, but also from the 13th and 43rd mechanized Brigades, 1CMI command, Zentrum Zivil-Militärische Zusammenarbeit der Bundeswehr. The Royal Netherlands Marechaussee participated in the exercise and so did the Ministry of Safety and Justice and the Netherlands Police. The Netherlands Ministry of Foreign Affairs dedicated some policy advisors and a diplomat. Approximately 140 persons from a broad range of IOs/NGO's participated in the exercise, such as:

- Transparency International (UK);
- International Organization for Migration (IOM);
- German Red Cross;
- WO=MEN;
- CORDAID;
- VNG International;
- PAX;
- SPARK;
- Federal Agency for Technical Relief (THW);
- UN-DPKO;
- UN-OCHA;
- Horn of Africa Women's Network;
- WADI.

Students from various universities also attended as observers.

An existing strategic and operational situation in a real Nation where international and local civil and military actors are active was used. The scenario base chosen was the UN mission to South Sudan (UNMISS; status of 1 January 2014)[2]. A simulated mandate change was given to the participants on the first day on which the different organisations in the collective needed to respond and make plans that took the diverse perspectives into account realising a Comprehensive Approach. The simulated change of mandate and subsequent mission tasking forced the organisations to review the situation and align their activities and plans and assess the implications on four themes:

- Military;
- Law and justice (police);
- Governance; and
- Humanitarian.

On the second and third day a context changes (increase of threat related to acting militias) and additional mandate change (a hand-over scenario) was given to the collective organisations to rework their plans together. During evening sessions, field experts and local representatives presented their insights and experiences from actual situations in the subject Nation.

As the 1GNC commander stated, this was the first civil-military exercise in his experience ever done in this way. The evaluation of Common Effort 2015 looked specifically into whether the set-up worked well in terms of intensive interaction and added value for the organisations. Evaluation was done by observations, a lessons learned session, and a short survey after the exercise. The main conclusion was that this new approach was effective in realising the level of interaction and learning needs of the participating organisations. The evaluation showed that the 3-day exercise duration was the right condensed length to develop common understanding and

[2] See, for example, http://www.un.org/en/peacekeeping/missions/unmiss/mandate.shtml.

provide rich learning. Moreover, the use of a realistic, topical scenario was highly appreciated by all participants. We list here the statements in the survey where more than 80% of the respondents gave a positive score (5 – 7 on a 7-point scale):

- Strongly confirmed statements related to learning and goal achievement:
  - I have increased my understanding of issues and problems outside my organisation.
  - I have increased my knowledge about the comprehensive approach.
  - I have now a better sense of (inter)organisational politics.
  - I have gained insight into how other organisations function.
  - I achieved my [learning] goal.
- Strongly confirmed related to Group processes:
  - We utilized different opinions for the sake of obtaining optimal outcomes.
  - We freely challenged the assumptions underlying each other's ideas and perspectives.
  - Final group discussion reflected the best that could be extracted.
- Strongly confirmed related to exercise settings:
  - Organizing the exercise in separate planning groups worked well.
  - The scenario fitted the needs of my organisation.

Suggestions for improvement addressed more preparation of the participants concerning base-level knowledge of scenario context (for those that were not operational in the scenario area), and some baseline knowledge on specific approaches such as, for instance, what Security Sector Reforms means. Further, more clarity of work structures in the working groups, and their tasks is needed to optimize the flow of activities during the exercise.

A factor that may have had an additional overall positive effect on the general appreciation was the start-up event of a the so-called 'Common Effort Community' and the signing of the Community statement by twenty-six organisations, coming from government, civil society, the military and private sector from Germany and the Netherlands. The declaration centres around the conclusion "*that sustainable solutions for fragility and conflict can only be achieved with a comprehensive, whole-of-society approach, comprising a wide range of governmental and non-governmental actors, internationally as well as in the country at stake; and that the UN, the international civil society and the international military organisations that work in the field of humanitarian aid, reconstruction, development and peace building should interact in an effective manner, while respecting each other's mandate, in order to address the multiple dimensions of fragility and conflict*."

In summary, the format of the exercise was intended to allow for intensive interaction and resulted in increased understanding of other parties and their perspectives and did so in a short period of time. Rich information presented by field experts and local representatives appeared to raise the level of learning to higher levels. Strategic-level involvement at the Community event added to the positive appreciation. The added value of the approach can be also deduced from the continued participation by almost all organisations in the next exercise. The Common Effort exercise and the Community event will be a yearly event.

Despite this evidently successful development and potential step forward for civil-military exercises more work needs to be done in several areas. One is that while the *immediate* learning seems positive there was no retention or effect study linked to the exercise – a problem with most exercises. The need for a more systematic follow-up and learning what is being used in the subsequent practise should be added to the exercise model. And if follow-up could be linked to the exercise, then also raising the initial level of capability of the participants could be

explored. In this way the exercise does not sit there as a onetime event but becomes part of continuous learning in the organisations. These aspects will be addressed in the following sections.

6.4 TOWARD A HIGHER LEVEL OF COLLABORATION CAPABILITY

The need for more intensive and effective interaction and collaboration between organisations at all levels is broadly recognised in societies as a prerequisite for addressing complex problems [19]. Studies on civil-military interaction [7], [8] and our evaluations discussed before have shown that there is a need to go beyond identifying obstacles and limitations of collaborations and seek how to build and develop interaction quality. We also noted earlier that interaction should go beyond the procedural and systems interoperability issues. While procedures and systems may be essential to supporting interaction routines, the basis of interaction and collaboration is the human capability to engage. We make the argument here that given the need for high quality interactions and at the same time quick responses to emerging challenges the human capability to engage in joint assessment and coordinated planning should be raised to higher base levels.

Our premise is that the ability of organisations to work together is vested in the people of those organisations. Without people's understanding of why others decide and do what, collaboration will fail or remain sub-optimal. The ability of people to constantly align with partners will need development, enhancement and maintenance by the strengthening and broadening the knowledge of the norms, values, capabilities, ways of working, etc., of other organisations and develop insight into how those organisations interact with each other. Development of these, rather complex, abilities can best be done by intensive interaction in small groups and exercises that focus on these capabilities. Knowledge of each other's roles, expertise, resources and responsibilities is thus built by deliberating on dilemmas and developing shared assessments or plans. Direct interaction also enables immediate feedback on own processes and those of other organizations. Moreover, direct interaction and open discussion is the basis for reducing assumptions and learning to deal with differences [1], [15].

It is our view that strengthening the collective ability of organisations for cooperation will result in faster, more effective and more sustained responses at the times when it is needed. It is proposed that a new, higher base level of ability to cooperate between contributing organisations (Figure 6-1) is critical. This means that preparations should not solely focus on specific scenarios but seek to build a broad basic understanding and basic attitude to orientation to diversity and differences in perspectives in other organisations.

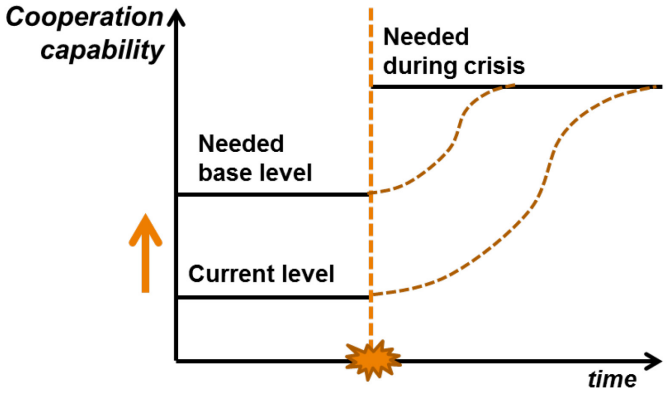

Figure 6-1: The Hypothesised Quickening Effect of a Higher Base Level of Organisations' Collaborative Capability.

6.5 TOWARD AN INTEGRATED EXERCISE APPROACH

Building on the experience using an intensive–interaction approach as presented above, we identified that additional processes and structures for effective preparation and follow-up are needed. In this section we describe a development of such integrated approach aiming for preparing, exercising and applying Comprehensive Approach interaction qualities and adding to a more general collaboration capability.

In Figure 6-2, the components of an integrated interaction environment are graphically represented as an example set-up of such an integrated exercise approach (which we labelled LEE – a Learning and Experience Environment) [9]. These components represent three phases of building knowledge and experience with a Comprehensive Approach:

- 'Preparation phase' for focused learning from earlier missions and focused learning about the organisations that will be involved in the exercise and the scenario will be used.
- 'Central phase' focused on enabling intensive, face-to-face, interaction between the parties for rapid building of understanding of diverse perspectives and ability to integrate those with own perspectives and building networks for effective subsequent interactions.
- 'Follow-up phase' to capture the retention and applicability of the acquired knowledge and competencies, and providing feedback for continuous learning.

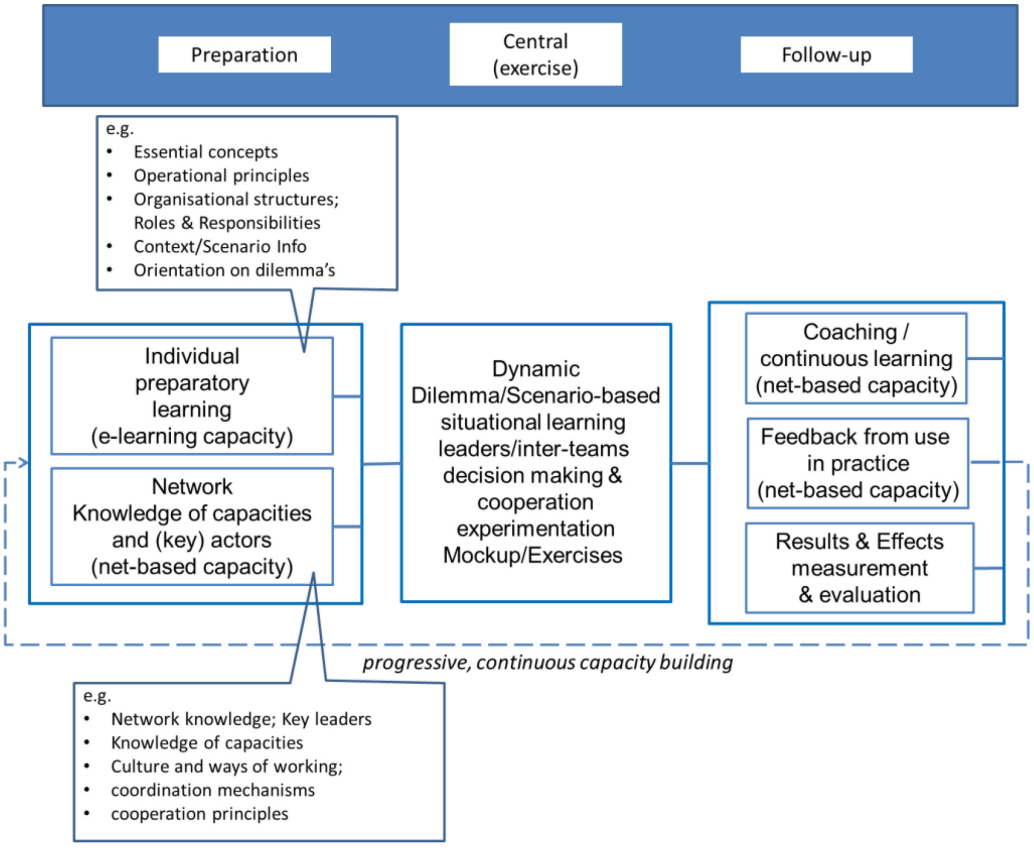

Figure 6-2: Three Components of the Learning and Experience Environment (LEE) Concept; an Intensive Interaction Environment for Preparing for Working in a Comprehensive Approach.

More specifically, in the preparation phase the participants gain basic knowledge and understanding of:

a) The operational scenario; and

b) The capabilities and organisational characteristics of the participating organisations and the experience and expertise of the participating representatives.

Preparation of the participants in an exercise often leaves much to be desired because of limited time and often too thick packets of scenario preparation information. While it has been noticed that most participants will not have or take the time to read anything before they arrive at site, some specific preparation will greatly enhance the effectiveness of the valuable time spent. This suggests a requirement for fast on-site learning and/or easy, possibly distant, learning of the very basics needed to quickly be in the situation. New developments in e-Learning and Gamification with or without synchronous or asynchronous digital interaction can make it attractive to the prospective participants to spend time on preparation; informal and yet with a high learning element. The idea is to know the essential things that are important for a quick start in the exercise. For instance, information about the other participants concerning their operational experience and specializations and their host organisation capabilities helps to find and address each other quickly – or, for example, a video that visualizes the scenario context might quickly give the participants a joint picture, adding to the very short country book.

The central phase has been discussed previously in this chapter. Yet as the importance of getting these issues right is paramount the key issues will be reiterated here. The central phase must:

a) Enable intensive face-to-face interaction with experts and teams from the participating organisations; and

b) Provide rich information on the scenario context by high-level experts and local (civil society) representatives.

By utilizing dilemmas and crises, based on realistic and relevant operational scenarios, situations are created where different perspectives and interpretations come together in joint assessments or plans. Rather than actually running through scenarios as if they were occurring, the main objective is the discussing of the scenarios to derive a mutual understanding the multiple relevant perspectives brought in by the participants.

There are many different forms in which the face-to-face interaction can be cast. In order to avoid a free-floating discussions a scenario is formulated, in which the organisations jointly – but each contributing from own perspective – develop a (partial) plan or perform an assessment or analysis of a crisis situation. The essence is the interaction on substantive issues in which the differences in perspectives and work practices can be addressed, and how processes and resources fit together and can be used. The intended result is not the plan per se but to interact leading to gained insight into the different roles, perspectives, methods and means, resulting in a common image that arises as to how these aspects combine to form the entire system is aimed at solving the problem or crisis.

During the follow-up phase the idea is to follow the participants when they go on mission and capture their experiences and link these to what was learned, or what should be added or changed in the learning and building interaction approach. The general assumption of any training is that what is learned is used and applied in operational practice. Learning from experience is how we progress. This may individually be so, but organisational learning requires more systematic analysis. Unfortunately, systematic evaluations of civil-military interaction are rarely done [5]. And if done, they are often too superficial to allow for strong follow-up processes, such as ‘best practices’ or guidelines for future operations [11], [17], [18]. Evaluations of cooperation are often based on singular subjective opinions, with little support from systematic empirical data [16]. Attempts

to assess or evaluate the quality of interaction and its effectiveness in missions will benefit from more systematic approaches, such as a follow-up reporting by the former participants during or after their mission using a survey, and structured debriefs. A complementary survey of a control group in the mission that had not been in the exercise would strengthen the conclusions on the exercise paradigm's effectiveness. These approaches should bridge what and how interaction is being built in exercises and what and how this knowledge and experience is being applied in operational practice. Learning from what works in practice contributes to the continual improvement of what should be trained and exercised.

Speaking to the issue of attempting to make such assessments more systematic, in the next chapter we present our development efforts to date, beginning with utilizing the previous literature summarized and lessons learned from exercises to identify key elements relevant to the evaluation of interaction which are categorized in a basic conceptual framework.

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Chapter 7 − QUALITY OF INTERACTION IN A COLLECTIVE COMPREHENSIVE APPROACH: CONCEPTUAL OVERVIEW

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7.1 INTRODUCTION

As the previous chapters illustrate, the ability to successfully achieve an effective Comprehensive Approach (CA) to complex crises, parties involved need to interact and develop shared understanding about each other's perspectives, roles, and capabilities. Meaningful interactions build constructive relationships [5], [16] which impact the collective capability to meet situational requirements. In the previous chapters an overview was given of dimensions of a comprehensive approach to complex operational situations that were selected for relevance based on the literature and our knowledge of complex cooperation and experience with civil-military exercises. From this, a range of basic requirements emerged for creating the conditions for effective cooperation either during mission or at exercises. Due to the nature of most comprehensive missions, and the agencies that contribute to them, people may rotate, organisations may join or leave, operational conditions may change – in short, the interaction setting is often highly dynamic and sometimes volatile. As a result, most interactions and cooperative arrangements will be mission or task specific and have an ad hoc character, certainly/especially in the initial phases of a mission or individuals' deployments to comprehensive teams. The challenge for any leader of these engagements is to create the right conditions for effective interactions.

We do not limit ourselves here to specific configurations of partners or parties, e.g., only governmental agencies including military, or just NGO's and military. Rather, we envision a situation in which these interaction requirements should work for most settings (aside from situations that involve interaction with opposing parties, which may need very specific (additional) requirements). 'Interaction' is used as the basic mechanism or process for building any engagement level ranging from such as coordination, cooperation, and collaboration [7], which can be distinguished in terms of the increasing degree of interdependence required to achieve goals. Keeping the focus on interaction as a generic and relatively neutral construct we stay away from being constrained or diverted by discussions of the specific differences between those levels. We see the capability of organising and performing effective interactions as an essential ability to adapt to the emerging demands and opportunities in operational situations in a field with multiple parties.

In this chapter we draw on the information presented in the previous chapters that address the various factors important to the development of quality interactions. From these, we identified a list of requirements formulated as indicators for (building) effective interactions relevant to collectives that work in a comprehensive approach. In particular we focus on the requirements that should be under some control of the participants and their leaders. We use this inventory of requirements as the basis of an assessment instrument of the quality of the interactions

between parties at a given moment. The objective is that such assessment and the assessment tool will provide some systematic, actionable feedback to all regarding interaction behaviours that can be observed and influenced which may help leaders and participants to discuss what needs attention and repair or encouragement and what on-going positive aspects can be celebrated and encouraged to be maintained.

7.2 INVENTORY OF REQUIREMENTS

The requirements identified, and described below, may be clustered according to two overarching dimensions:

1) Organizational Readiness; and
2) Interpersonal Readiness.

Moreover, as indicated in Table 7-1 below, the overarching dimensions are assumed to be comprised of a variety of factors, each represented by clusters of items within the assessment instrument.

Table 7-1: Factors Important to the Development of Quality Interactions.

Dimensions	Factors
Organisational Readiness	1) Need to interact with other organisations 2) Clarity of (common) goals 3) Interaction structures 4) Climate of the collective
Interpersonal Readiness	5) Knowledge about the others 6) Trust 7) External focus 8) Collective identification 9) Inter-team learning 10) Perspective taking behaviours 11) Inter-team coordination

7.2.1 Organizational Readiness

7.2.1.1 Need to Interact with Other Organisations

The starting condition of any interaction is that there is a perceived need to interact, either by external pressures, (be they political and/or public in nature), or by the common belief that interaction with this or these actors has benefits above costs of the interaction and is needed to achieve own goals and higher-level goals. Also practical conditions may dictate the need for close interaction and alignment. For example, if an organisation has collected humanitarian supplies but doesn't have the logistical planning capability or the airlift capability they may find themselves in an interdependent relationship with an organisation that has those capabilities. Conversely, the organisation with airlift and logistics may not have familiarity with a region or cultural expertise to develop understanding of needs and so they must interact with different organisations that do have those capabilities in order, for instance, to be able to establish bases, etc., in an area.

In some cases, organisations will have done a thoughtful assessment of benefits vs. costs of engaging in interactions with a collective of parties − however operational reports indicate that there will be variation in the extent to which this has occurred, either due to time pressure or the fact that the decision has been made at a higher level. While their presence at the table indicates that they have made at least a preliminary decision to join the collective, we acknowledge that the trust, benevolence, and good will present, is assumed to vary, as can possible negative feelings, critical attitudes, or stereotypes that may exist.

7.2.1.2 Clarity of (Common) Goals

Higher-level goals as well as the intended outcomes may also differ between the parties, meaning that the relationship between the parties' individual goals and the overarching common purpose may not be so clear. Thus, clarity of those goals as well as clarity of one's own role and the roles of others and how these relate to each other is essential for discussing and aligning independent and collective tasks and activities. A lack of clarity in these areas may hinder effective interaction and may be a potential source of confusion and frustration.

For some entities, the idea of alignment of goals, mandates and activities to a common goal may appear to suggest 'forcing' an organisation to change its course and thus result in strong resistance. Even 'common' − and definitely 'integration' − may sound too strong for some parties that stress their independence. As a result, strategic objectives and communications inside and outside the core stakeholders, requires careful wording and explicit appreciation for the diversity of perspectives and roles. Thus, clarity of where all parties stand in the context of the mission or task vis-à-vis their home organisation mission and mandate is important to capture, in particular in the beginning of their interaction.

7.2.1.3 Interaction Structures

Organisational readiness is also facilitated by the availability and compatibility of a range of practical considerations, concrete (infra) structural and documented arrangements such as covenants and agreements. Still, aspects such as these are often forgotten [6]. For instance, providing clear inter-organisational access points, such as contact persons or a dedicated email address, helps in setting up exchanges, but also requires established procedures for following up and returning contact to a request. Similarly, if there are parallel processes in participating organisations shared meeting schedules (battle rhythm) facilitates the alignment of decision moments of the different organisations. Knowing these schedules allows participants to participate in each other's meetings, if opportune. Availability of such simple information contributes to alignment of interactions. Organisational aspects comprise concrete (infra) structural and documented arrangements, such as shared information access points (i.e., contact persons or a dedicated email address, shared meetings, shared computer drives), clear points of contact, mission-related information exchange protocols, shared spaces, telephone/email lists, doctrine, covenants, agreements, meeting schedules, etc. As the physical proximity of participants to each other directly impacts participants' interactions, shared spaces and joint operational facilities will promote interaction and collaboration. Informal and semi-formal opportunities for meetings and person-to-person contact are often preferred to formal meetings, as we noted earlier. Facilitating such interaction is an organisational aspect that supports the quality of overall interaction. In operations, such meeting places are best positioned in neutral (non-military) areas. Still, in cases where such opportunities for less formal exchanges do not exist, even more formal meetings will at least begin to provide the means to engage in interaction and the building of shared awareness and understanding. Finally, even the presence of what may appear to be extremely common sense and mundane tools such as mission-related information exchange protocols, telephone/e-mail lists and acronym and terminology dictionaries (see Ref. [9]).

7.2.1.4 Climate of the Collective

Promoting open interaction and support by the leadership of the organisations contributing to the CA team should emphasize the importance and value of building and maintaining relationships with members and other groups in the CA team. While the support from the senior leadership in the sourcing organisations may already be reflected in their decision to participate in the CA team, home agency strategic-level support may well vary. Where strategic-level support is lacking it must be revisited and established or strengthened. Where it exists, it will still need to be monitored to ensure consistency in the quality of the continued interaction. During interaction current/existing leadership in the CA team, formal and informal, not only has a role in making sense of the complexities of the mission or tasks, but also has a role in providing guidance in formulating higher-level goals and collective identification and aligning the diverse perspectives of the different organisations in integrated pictures. Leaders in CA teams play a huge role in setting the climate for effective interactions and building of relationships. When leaders set the tone for social interactions, they are influencing the climate for future interactions amongst members of the CA team. According to Schneider, Ehrhart, and Macey [17], social interactions are the basis for the interpretation, creation, and shared understanding of policies and practices. Leaders can also influence climate by offering behavioural guidance (including ethics and justice), demonstrating involvement (participation, support, and empowerment), and by being concerned with core operations for example by emphasizing safety and service [13]. The climate most likely to make for successful CA operations is one in which different opinions are deliberately elicited and valued, where time is taken to gain perspective on important decisions, and where members respectfully challenge the ideas of others and while effectively building relations. This type of climate promotes creative tension that leads to inclusive and innovative solutions.

7.2.2 Interpersonal Readiness

7.2.2.1 Knowledge About the Others

Past interactions that groups/teams/agencies may have had with each other prior to the current operational situation or exercise are likely to influence engagement processes, positively or negatively. It has however been noted in exercises (see Chapter 5), that CA participants often have limited or shallow knowledge about the other organisations such as their missions, mandates, responsibilities, cultures, motives, organisational norms, values, principles, decision structures, working practices, resources, processes, technologies capabilities, at least initially. Some factual knowledge about organisations, such as capabilities or capacities, might be best learned in advance in order to focus the face-to-face interaction time on learning and exchanging the more complex and tacit knowledge, such as values and principles. Lacking general knowledge about the participating organisations may lead to ineffective interaction and exchanging only shallow information rather than discussing the implications for the tasks and mission. Worse still, a lack of information may maintain and/or foster false assumptions that may, in turn lead to incorrect expectations and confusion, both of which would be expected to be related to decreased mission efficiency and effectiveness.

Besides the requirement of having sufficient information about the participating organisation, having information about the other individual contributors and his or her expertise and experience, and role/position in the organisation may help other participants to quickly find the right expertise to discuss mission and task aspects, as well as good contact points for direct interaction.

In addition, in new situations, a good understanding and background knowledge of the operational situation or – in the case of an exercise the exercise scenario − is needed to provide the basis for meaningful discussion and interaction on joined assessment of the situation and aligning the plans that are already developed or need to be developed to address the identified.

7.2.2.2 Trust

As Thompson discussed in Chapter 4 of this report, the development of trust even in such ad hoc conditions is possible. However, because there is often no opportunity to engage in a multi-dimensional selection process for these settings, it is unlikely to be able to screen for and include only those individuals who have the highest levels of a 'predisposition to trust'. Still, interactions with other individuals and other organisations provide direct evidence of their competences, integrity and concern for others and their consistency of behaviours. Thus, assessing initial expectations can inform whether work needs to be done in this area, and if so in what regard. It may well be that additional information about the other participating individuals or organisations, or about the mission objectives may increase positive expectations. In turn, these more positive expectations would be anticipated to increase contributors' investment in effort to engage in interaction with others and providing an invitation to and the encouragement of the behaviours mentioned above. Together these can work to reduce the impact of inevitable misunderstandings and confusion, which acknowledges that in these complex condition individuals and teams are bound to have confusions and misunderstanding. These should be expected to happen and treated as understandable misunderstandings and confusions, and addressed accordingly – this relates back to handling diversity and conflict. The trust scale used focusses on counting and relying on each other, keeping ones word, informing others on matters that may affect their work [10], [11].

7.2.2.3 External Focus

External focus is a leadership condition that indicates whether a group's formal leader emphasizes the importance and value of building and maintaining relationships with other groups in the coalition [15]. External focus may provide members with a sense of urgency for coordinating work. It may also display leaders' commitment to such activities and further promote coordination. Leaders can create external focus by referencing the importance and value of coordination in their communication towards lower-level members.

7.2.2.4 Collective Identification

Collective identification refers to the degree to which participants perceive being affiliated to the broader collective or group of which they are a part [1], [4]. In the current context, collective identification will be synonymous with coalition identification, and people who identify with the coalition will attach personal relevance to realizing its goals and, consequently, experience failures and successes of the coalition as their own failures and successes. Such identification is potentially important, because it motivates members to exert extra effort at realizing coalitions' collective goals. As discussed before, one prime way in which members may realize such goals is through coordinating their work with other groups in the coalition. It follows that coalition identification may be an important driver of coordination during missions. Leaders can promote participants' coalition identification by stressing the unique and prestigious nature of the coalition. Participants are more likely to identify with the coalition when they perceive this entity to be of high status and importance. Leaders can also promote identification by stressing the interdependence between groups within the coalition, for example, by using terms such as "we" when speaking about multiple partners of the coalition, rather than using language such as "us" and "them".

7.2.2.5 Inter-Team Learning

Representatives from organisations contributing to a CA team usually cannot be preselected, but contributing organisations may want to send specialists with broad experience in working in diverse teams because it is these individuals have the experience that can develop the ability to liaise, move and work between different organisations and appreciate and handle differences in the professional cultures fit best in complex interaction settings. We hasten to add that not all participants need to be involved in all interactions with other groups.

Some group members with the abilities and experiences mentioned may be better to bridge between parties and build the interaction. These participants may show more of the specific connecting behaviours described next.

Specific behaviours identified as effective in inter-team, inter-organisational settings such as a group's actions to include other groups' members in their internal processes. These boundary spanning behaviours comprise inviting others, scouting/seeking new input, discussing that input in their own group, and testing assumptions with others. Demonstrating behaviours of acquiring additional information about other organisations shows positive attitudes to learn from others. Managing diversity and handling disagreements have been documented as integral to constructive discussions, as has connecting differences and showing potential relationships between differences at higher conceptual levels. Finally, the presence of intermediate team reviews or 'reflection moments' will provide participants an opportunity to express concerns or suggest processes to improve interaction.

7.2.2.6 Perspective Taking Behaviours

Perspective taking refers to "*the effortful and effective understanding of diverse cognitions, emotions, and identities tied to particular targets in particular situations or context*" (Ref. [2], p. 50; targets meaning individuals or groups). Individuals, groups, organisations have their own norms, values and identities that may act as interpretive barriers, selectively filtering of information. Perspective taking is the effort of individuals to try and understand the thoughts, feelings and values underlying the differences in viewpoints of the other party or parties. Perspective taking is generally associated with maintaining positive relationships and clarity of communication between different groups by fostering information elaboration [8].

7.2.2.7 Inter-Team Coordination

Inter-team coordination reflects the participants' perceptions of how well the different parts of the CA team and their activities are combined, aligned or mesh to achieve the CA objectives. (e.g., are there problems in coordinating; are disagreements settled quickly; do constructive discussions take place) [6]. CA requires the parties to discuss and align their activities to prevent operational conflicts and gain by efforts that are combined or synchronized. Such alignment efforts among multiple organisations are important predictors of overall performance [14]. Disagreements or conflicts between members of a CA collective are often linked to perceived incompatibilities among the participating organisations. These can relate to task content and outcomes, or to relationship conflict referring to interpersonal frictions and incompatibilities. Higher-level goals may be shared by the members of the collective but more local operational or tactical-level goals may differ between the participating organisations. Constructively settling task-related differences may be done by accepting the differences as different viewpoints and integrating these in the shared assessments and conditions for plans. Responses to interpersonal conflicts, in these often ad hoc and short-lived collectives, seem best to be just avoided and put aside if not resolvable immediately, in order to keep focus on the tasks to be done [3].

7.3 A BRIEF COMPARISON OF THE QUALITY OF INTERACTION AND INTER-TEAM COORDINATION MODELS

As noted previously, the list of requirements identified for the QIA was based on information presented in the previous chapters of this report. Most of these provided rich descriptions of the problem space, while Chapter 5 provided empirical evidence of many of these factors as indicated in the survey ratings provided by Canadian and Dutch and German participants in multiple inter-agency and inter-organisational training and exercise events. Chapter 5 is also notable in that the TNO researchers were able to develop an empirically-derived model

of inter-team coordination from their survey data. Our identification of requirements for the quality of interaction is informed by but also expands on this prior work.

More specifically, some factors are directly drawn from the inter-team coordination model, including:

- External Focus;
- Collective Identification (although it is termed Organizational Identification in the TNO model); and
- Inter-Team Learning.

However, other distinctions between the two models exist. For instance, in the QIA framework we have identified 'climate of the collective' as a distinct factor that does not explicitly appear as a stand-alone variable in the TNO model, although it is at least mentioned in the latter in terms of a 'willingness to engage in other inter-team learning'. And of course, trust, at least as a distinct factor appears in the QIA framework. Further, the TNO model includes an outcome variable 'inter-team coordination' while the focus of the QIA remains on process rather than outcomes (although this is a point we return to in the last chapter of this report). As well, Organizational Readiness is an additional dimension is explicitly articulated in QIA framework but not the TNO model. It is comprised of the need to interact with other organisations; the clarity of the CA collective's goals; and interaction structures, and climate of the collective that facilitate quality interactions among the CA collective.

Perhaps most importantly however, the TNO model is predicted on team members having a breadth of functional experience – it is this which provides them with the a wide knowledge base relevant to inter-team coordination, but which also, according to the model, spurs the capacity for the cognitive complexity that facilitates a further range of inter-team coordination behaviours as well as the motivation to engage in these and to learn more about other parts of the collective, etc. The QIA framework does not have breadth of functional experience as a starting requirement for the development of quality interactions – indeed it is not part of the QIA at all. Thus, the QIA framework may be more applicable to a wider variety of CA settings, including those in which members (although likely not leaders) can have a range of experience, including a very limited breadth of experience. Even in the latter case quality of interaction needs to be built using quality assessments as learning opportunities to improve the functioning of the collective.

7.4 CONCLUSIONS

There are many factors that must align for CA to be successful, however not enough attention is given to identifying, assessing, and developing the factors that improve quality of interaction. This chapter starts to address this gap by identifying select human element requirements of actors working in a comprehensive approach.

Quality interactions are important not only for CA missions, but also for CA training, and even prior to the start of training. The intent to be inclusive in planning, decision-making, and operating begins with involvement of potential partners and stakeholders in joint planning and development of training objectives and scenarios [12]. The list of consolidated requirements for quality or effective interactions relevant to CA teams in complex missions can be applied in operational settings as well as in exercise settings where organisations intend to prepare for CA in complex operations. While practice has a given operational condition, in exercises the operational setting is simulated. An important element is the scenario that defines the operational situation. The more relevant such scenarios are for all participants, the more effective interaction and building of mutual understanding is. Using a military scenario without input from non-military groups limits the value for civil

parties and creates negative feelings of only facilitating training for the military, rather than learning both military and civilian. Jointly developing a training scenario may take more time and effort to realise, but will build joint ownership and engagement, and also mitigates the risks associated with lack of training fidelity.

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Chapter 8 – QUALITY OF INTERACTIONS: ASSESSMENT INSTRUMENT

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8.1 INTRODUCTION

We have argued that the underlying and enduring challenge of CA is the critical need for people to be able to work together. This means that people with different training, different cultures, different operating procedures, etc., must problem solve *together*. They need to understand the environment, understand the problem, agree on an approach, assess the risks, and implement the solutions *together*. To do so they must understand and appreciate not only what they can contribute to mission objectives, but also what other actors can contribute and how these pieces fit together. The preceding chapter is a culmination of that thinking and outlines the requirements that we believe are important to achieve this broader understanding and that facilitates effective interaction, cooperation and coordination.

In this chapter we introduce the Quality of Interactions Assessment (QIA) Inventory, designed as a tool that will enable a more systemic assessment of these requirements across a CA collective. In particular, the QIA is conceived of as a vehicle to provide feedback and insight to the CA leaders, members and/or observer/trainers regarding participant perceptions of the current state of interaction within the collective. More specifically, the summary information across the collective as provided by the QIA can provide valuable feedback to its leaders, members or to observer/trainers on the current state of interactions, as a check on key factors that can influence the overall quality of interactions, as well as identify particular areas that might need focused attention and intervention.

Although developed as a potential tool for all CA participants (leaders, members, and observer/trainers) The QIA may be of particular use to leaders of CA engagements whose particular challenge is to create the right conditions for effective interactions within the CA collective, to monitor its progress, to provide praise concerning what works and to give specific attention to identified weaknesses. The results can also be used as a vehicle for the purpose of reflection, discussion and development on the state of interaction.

Also consistent with our approach in this work overall, the QIA is intended to be applicable to both operational and training contexts. This is because, regardless of differences in the contextual aspects of the mission, or whether the collective is conducting its work during operations or in an exercise, an ever-present factor affecting the proximal work is the quality of the interactions in the CA collective. Similarly consistent with our underlying premise in this report, the QIA focuses on interactions per se and does not assess CA outcomes or effects. This is because real CA mission outcomes are extremely complex and there are many factors that are

outside the control of the collective that may play a role in eventual success or failure of a CA (poor policy, lack of resources, lack of political influence, ambiguous guidance, lack of strategy, etc.). All too often the interaction elements of a CA mission environment are taken for granted. Still, it is these factors that are most controllable and which can be most directly addressed at the CA-collective level.

8.2 STRUCTURE OF THE INSTRUMENT

The structure of the QIA reflects the conceptual inventory of requirements presented in the previous chapter. Accordingly, all items are assumed to either influence interactions or to be an indicator of the quality of interactions. The combined answers of groups of items provide an indication of the 11 QIA factors (need to interact, clarity of goals, trust, and etc.), which in turn reflect the two overarching organizational- versus interpersonal-level readiness dimensions of our framework. For some factors, the literature provided existing and validated items. For other factors, new questions had to be created because the academic literature did not reflect these factors.

In addition, principles of scale construction and practical experience were applied to QIA item selection and development. Thus, its items needed to:

1) Use simple language;
2) Be free of unnecessary jargon, so that they are easily understandable to a novice respondent;
3) Be face valid;
4) Assess only one issue;
5) Use multiple items for each factor to increase validity and reliability;
6) Include reverse coded items to reduce response bias;
7) Be simple to score; and
8) In total, be comprehensive enough to cover factors that impact organizational and interpersonal readiness for interaction.

This initial version of the QIA is comprised of 64 questions addressing the 11 measures associated with nature of interactions in CA environments We note, however that the version we present here reflects our item generation efforts and we anticipate that the number of items will be further reduced with additional scale development efforts. Still, it is important to remember that in order to get a good and stable idea of each measure that makes up the QIA, more than one question must continue to be used to assess that concept, ideally no fewer than three items should be used to assess each factor. As well, these measures should be tested for reliability and validity prior to implementation.

8.3 PROCEDURE OF USE

To use this instrument, all participants in a CA collective should complete the QIA, which can be done on paper or electronically. In general it is important to stress that there are no wrong or right answers, that each person's perception is valid and that their answers will be treated as being anonymous and aggregated across respondents. If there are concerns about any of this procedures should be put in place that convincingly shows this. For instance, an outside person could be (t)asked to hand out, collect and process the data to aggregated information. Once scores for the different measures are tabulated, leaders and participants should be informed of

the results and should discuss any areas that are a concern. Leaders or observer/trainers should be prepared to lead a discussion that focuses on meaning and understanding the findings, identifying causes of issues, and discuss potential solutions (not blaming). The instrument does not provide a benchmark score or established cut-offs that denote the difference between effective and ineffective interaction. Mostly it is intended to promote reflective discussion that provides the best learning to reinforce more effective interactions and can lead to the development and implementation of best practices.

As presented below, the QIA begins with a brief introduction and instructions to provide respondents with a frame of reference for the QIA and context to complete the measure. The instrument itself comprises a series of statements to which the participants provide responses that are reflective of their perceptions or opinions. Accordingly, participants are asked to indicate the extent to which they agree or disagree with each item using a (Likert) scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree), with intermediate criteria or Disagree, Slightly Disagree, Neither Agree nor Disagree, Slightly Agree, Agree (2 – 6). A not-applicable (NA) box provides the opportunity for the respondent to state that this item is not applicable or any other reason to not give an answer. The numerical scale was utilized because prior research indicates high user acceptability [1]. Observer/ trainers can use the instrument to provide their assessments based on their observations of interactions or by interviews with members of the CA collective. The present tense is used in the instrument for use during or near the end a mission or exercise. In some cases the present tense may be used to assess participants' expectations concerning interactions in a future mission or exercise. Similarly, if the instrument is used after a mission or exercise the tense should be modified accordingly. Yet, perhaps the ideal timing for the administration of the QIA is during the mission to promote reflection and feedback during mission or exercise, so that the results can be used to improve interactions and 'practice' the feedback.

8.4 THE QIA INSTRUMENT

Quality of Interactions Instrument

[OPERATION/EXERCISE NAME]

Introduction and Instructions:

Each of the following statements relate to aspects of your experience in **[OPERATION/EXERCISE NAME]**. Some questions refer to aspects relating to the organisation that you represent in **[OPERATION/EXERCISE NAME],** which is referred to here as "my group", which may be small or even only you. Other questions refer to 'the collective', defined as the collection of parties that are currently interacting to realise the **[OPERATION/ EXERCISE NAME]**. The collective can be small and tight as a small team working together, or larger and more loosely as a collection of groups, depending on the specific mission.

There are no right or wrong answers to these statements. It is about your unique perspective and input. Your input will be treated confidentially. The results are intended to stimulate collective reflection on what goes well and what can be improved, and will be done without identification of you as individual.

Please reflect on your experience in the [name of exercise/operation], and indicate the extent to which you agree or disagree with each of the following statements:

Need to interact with other organisations (5)[1]

Please indicate your agreement or disagreement with the following statements:	**Strongly Disagree**						**Strongly Agree**	
1a. In order to achieve my goals, I have to exchange information and advice with other groups in the collective.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐
1b. I have to work closely with other groups in the collective to do my work properly.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐
1c. I rarely have a need to check or work with other groups in the collective.*	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐
1d. My group recognizes the importance of working with other groups to achieve its mission.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐
1e. My group's leaders meet and confer with the leaders of other groups about mutual collaboration.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐

Clarity of (common) goals (4)

Please indicate your agreement or disagreement with the following statements:	**Strongly Disagree**						**Strongly Agree**	
2a. The tasks and responsibilities of the collective are clear to me.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐
2b. The goals and objectives for the collective are clear to me.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐
2c. It is clear how my group's work relates to the overall objectives of the collective.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐
2d. The expected results of the collective work are clear.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐

Interaction structures (10)

Please indicate your agreement or disagreement with the following statements:	**Strongly Disagree**						**Strongly Agree**	
3a. The collective has access to a shared document information system.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐

[1] Notes: (1). Name of factor *(above the list of questions)* does not appear in the version of the survey completed by respondents. (2). Items ending with a * indicates a reverse scoring for that item; * should not appear in the survey given to respondents.

Please indicate your agreement or disagreement with the following statements:	**Strongly Disagree** 1	2	3	4	5	6	**Strongly Agree** 7	NA
3b. Neutral meeting spaces are available to the collective for information exchange and/or planning.	☐	☐	☐	☐	☐	☐	☐	☐
3c. Members of the collective have access to a telephone list in order to phone each other directly.	☐	☐	☐	☐	☐	☐	☐	☐
3d. It is easy to interact with the other members of the collective face-to-face.	☐	☐	☐	☐	☐	☐	☐	☐
3e. Members of the collective have easy digital access to each other (compatible e-mail and computer systems).	☐	☐	☐	☐	☐	☐	☐	☐
3f. Time is set aside in the schedule for coordination among members of the collective.	☐	☐	☐	☐	☐	☐	☐	☐
3g. Information sharing is informal and flexible as required.	☐	☐	☐	☐	☐	☐	☐	☐
3h. There is a high level of information sharing within the collective.	☐	☐	☐	☐	☐	☐	☐	☐
3i. There are problems in communication within the collective.*	☐	☐	☐	☐	☐	☐	☐	☐
3j. Resources within the collective are shared whenever needed.	☐	☐	☐	☐	☐	☐	☐	☐

Climate of the Collective (5)

Please indicate your agreement or disagreement with the following statements:	**Strongly Disagree** 1	2	3	4	5	6	**Strongly Agree** 7	NA
6a. It is important to deliberately elicit differing opinions from across the entire collective.	☐	☐	☐	☐	☐	☐	☐	☐
6b. It is worthwhile to take time to gain multiple perspectives on important decisions.	☐	☐	☐	☐	☐	☐	☐	☐
6c. I am comfortable in stating opinions that differ from others.	☐	☐	☐	☐	☐	☐	☐	☐
6d. In conversations across the collective, ideas are respectfully generated and debated.	☐	☐	☐	☐	☐	☐	☐	☐

Please indicate your agreement or disagreement with the following statements:	Strongly Disagree							Strongly Agree	
6e. I ask questions to deepen my understanding.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐		NA ☐

Knowledge about the others (6)

Please indicate your agreement or disagreement with the following statements:	Strongly Disagree							Strongly Agree	
4a. I understand the resources and capabilities of the other groups in the collective.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐		NA ☐
4b. I understand the expertise of the other groups in the collective.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐		NA ☐
4c. I understand the processes and decision structures of the other groups in the collective.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐		NA ☐
4d. I understand the motives and mandates of the other groups in the collective.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐		NA ☐
4e. I understand the norms and cultures of the other groups in the collective.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐		NA ☐
4f. I have increased my network of relationships with other groups in the collective.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐		NA ☐

Trust (5)

Please indicate your agreement or disagreement with the following statements:	Strongly Disagree							Strongly Agree	
5a. My group can count on the other groups in the collective for help, if we have difficulties with our task.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐		NA ☐
5b. My group can rely on the other groups in the collective to keep their word.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐		NA ☐
5c. The other groups in the collective will carefully inform us on matters that affect my work.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐		NA ☐
5d. We can rely on the other groups in the collective to take our interests into account.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐		NA ☐

Please indicate your agreement or disagreement with the following statements:	**Strongly Disagree**						**Strongly Agree**	
5e. The other groups in the collective are open and upfront with us.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐

External focus (4)

Please indicate your agreement or disagreement with the following statements:	**Strongly Disagree**						**Strongly Agree**	
7a. Within the collective the importance is emphasized for my group to exchange information with other groups in the collective.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐
7b. Within the collective the importance is emphasized for my group to build solid relationships with other groups/agencies in the collective.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐
7c. Within the collective the importance is emphasized for my group to collaborate with other groups within the collective.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐
7d. Within the collective the importance is emphasized for my group to coordinate my group's actions with those of other groups in the collective.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐

Collective identification (6)

Please indicate your agreement or disagreement with the following statements:	**Strongly Disagree**						**Strongly Agree**	
8a. When I think and talk about this CA collective, I usually think or say 'we' rather than 'they'.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐
8b. I am very interested in what others think about this CA collective.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐
8c. When someone criticizes the collective, it feels like a personal insult.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐
8d. The successes of this CA collective are my successes.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐
8e. If a story in the media criticizes our CA collective, I would feel embarrassed.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐

Please indicate your agreement or disagreement with the following statements:	Strongly Disagree 1	2	3	4	5	6	7 Strongly Agree	NA
8f. I feel that the problems of others in the collective are my own.	☐	☐	☐	☐	☐	☐	☐	☐

Inter-team learning (7)

Please indicate your agreement or disagreement with the following statements:	Strongly Disagree 1	2	3	4	5	6	7 Strongly Agree	NA
9a. We regularly take time to figure out ways to improve our group's coordination with other groups in the collective.	☐	☐	☐	☐	☐	☐	☐	☐
9b. Our group members go out to get all the information they possibly can from other groups in the collective.	☐	☐	☐	☐	☐	☐	☐	☐
9c. Our group frequently seeks new information from other groups in the collective that leads us to make important changes.	☐	☐	☐	☐	☐	☐	☐	☐
9d. In our group, someone always makes sure that we stop to reflect on the inputs from other groups in the collective.	☐	☐	☐	☐	☐	☐	☐	☐
9e. The collective's assessments and plans always includes multiple perspectives reflecting the relevant contributions of the groups in the collective.	☐	☐	☐	☐	☐	☐	☐	☐
9f. People in this group often speak up to test assumptions about other groups/agencies we coordinate with.	☐	☐	☐	☐	☐	☐	☐	☐
9g. We invite people from other groups in the collective to present information or have discussions with us.	☐	☐	☐	☐	☐	☐	☐	☐

Perspective taking behaviours (4)

Please indicate your agreement or disagreement with the following statements:	Strongly Disagree 1	2	3	4	5	6	7 Strongly Agree	NA
10a. When disputes arise with other groups in the collective, try to understand the feelings of those involved.	☐	☐	☐	☐	☐	☐	☐	☐
10b. I try hard to see things from other group members' perspectives, even when our views are different from theirs.	☐	☐	☐	☐	☐	☐	☐	☐

Please indicate your agreement or disagreement with the following statements:	Strongly Disagree							Strongly Agree	
10c. If conflicting opinions are put forward in the collective, try to understand the reasoning and thought processes behind them.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐	
10d. When the other groups in the collective hold views that contrast with my own views, I try to understand why they think as they do.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐	

Inter-team coordination and conflict handling (8)

Please indicate your agreement or disagreement with the following statements:	Strongly Disagree							Strongly Agree	
11a. Processes and activities are well-coordinated with other groups of the collective.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐	
11b. There are no problems in coordinating with other groups in the collective.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐	
11c. Unnecessary duplications of activities are resolved in the collective.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐	
11d. Conflicts with other groups are settled quickly within the collective.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐	
11e. Miscommunications with other groups in the collective occur often. *	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐	
11f. Discussions with other groups in the collective are constructive.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐	
11g. Disagreements with other groups in the collective always remain about task-related oriented and do not become personal.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐	
11h. Issues are always discussed and worked out in mutually acceptable decisions.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	NA ☐	

8.5 REPORTING RESULTS

Items identified with an asterisk (*) above are reversed in meaning from the overall direction of the scale (e.g., the item “miscommunications with other groups in the collective occur often” is reversed in meaning from on that factor that suggest a high level of inter-team coordination and conflict management exists).The scoring for these items must be reversed (a 7 is scored as a 1, a 2 is scored as a 6, etc.) as a first step in analysing the

data. Responses across items can then be aggregated at the level factor (Interaction Structures, Knowledge of Others, etc.) and/or at the level of dimension (e.g., organisational/interpersonal dimension) for each respondent and across members of the collective to inform the participants and its leaders and/or observer/trainers regarding how respondents are perceiving the quality of interaction in the collective. One way of doing this is to calculate average scores. Another well-known procedure is to calculate for each measure how many individuals gave a low score (in the current case scores from 1 – 3) and how they fall within a high score grouping (in this case scores between 5 – 7), with one score in the middle (score 4: Neither Agree nor Disagree) assumed to represent a neutral or indecisive opinion. Organising the data in clusters of low, mid, and high categories gives a quick visualisation of where the critical issues are that should be addressed and where the quality of interaction is good. An example of this approach to graphic presentation of results is given below (Table 8-1).

Table 8-1: Results Calculation Methods.

										Method 1	**Method 2**
ITEM Level Scores										SUM/#items, per respondent; then average over all respondents	%Sum #1 – 3/ #respondents %Sum #4/ #respondents %Sum #5 – 7/ #respondents
1a	1b	1c*	1d	1e						Average Need to Interact	%Low; %Mid; %High Need to Interact
2a	2b	2c	2d							Average Clarity of Goals	%Low; %Mid; %High Clarity of Goals
3a	3b	3c	3d	3e	3f	3g	3h	3i*	3j	Average Interaction Structures	%Low; %Mid; %High Interaction Structures
4a	4b	4c	4d	4e	4f					Average Knowledge of others	%Low; %Mid; %High Knowledge of others
5a	5b	5c	5d	5e						Average Trust	%Low; %Mid; %High Trust
6a	6b	6c	6d	6e						Average Climate Collective	%Low; %Mid; %High Climate Collective
7a	7b	7c	7d							Average External Focus	%Low; %Mid; %High External Focus
8a	8b	8c	8d	8e	8f					Average Collective Identification	%Low; %Mid; %High Collective Identification
9a	9b	9c	9d	9e	9f	9g				Average Boundary Spanning	%Low; %Mid; %High Boundary Spanning
10a	10b	10c	10d							Average Perspective Taking	%Low; %Mid; %High Perspective Taking
11a	11b	11c	11d*	11e*	11f	11g	11h			Average Coordination	%Low; %Mid; %High Coordination

* = reverse coding

The presentation format in Figure 8-1 shows a possible presentation of the results of a specific factor from two successive assessments calculated according Method 2 given in Table 8-1. A low score of 52% indicates that more than half of the respondents disagree on average with the statements related to this factor. This means that there is a need for some discussion and reflection with the participants and leadership to understand why this is the case, and what ideas can be suggested to improve that. The second assessment with the same factor shows a substantial improvement. This way of presentation can be instructive to show the development of these factors across the course of a mission or exercise.

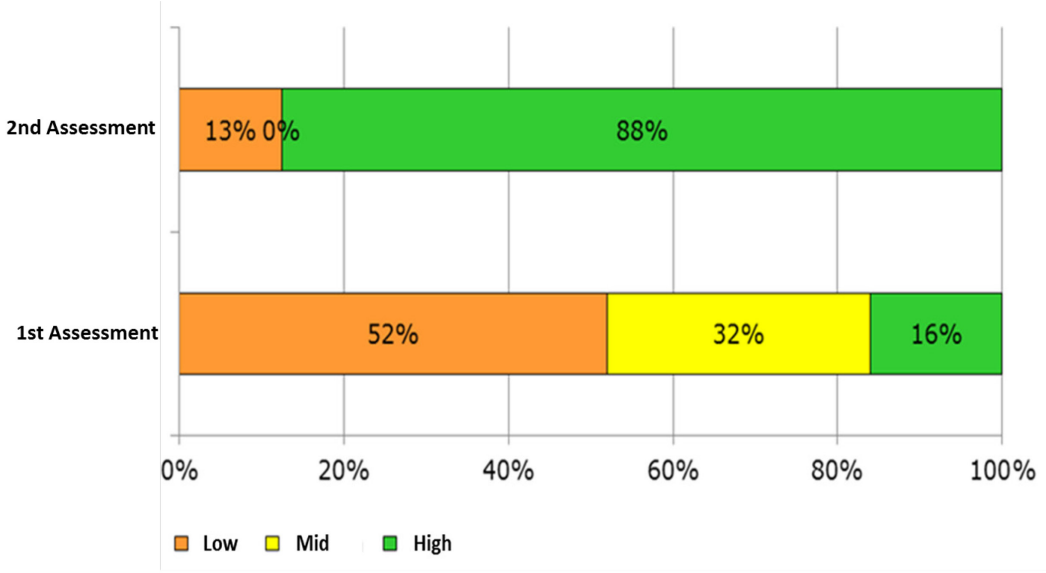

Figure 8-1: Sample Representation of Categorized Results from Two Successive Surveys on the Same Factor (the first below), Showing Substantial Improvement on this Construct.

8.6 CONCLUSIONS

This chapter summarizes our initial efforts at the construction of an inventory to assess the quality of interaction requirements that we identified in the previous chapter. As well, we provide instructions for its use and two methods that can be used to analyze and summarize the results. As noted the overall intent is to provide a more systematic way to gather and collate the perceptions of members of CA collectives concerning the quality of interactions in a collective. Applicable to either operational or training contexts, the QIA is ultimately intended as a vehicle to promote reflection and/or discussion concerning the vital aspects of collaboration and interaction in order to provide CA leaders and members with the opportunity to recognize the aspects that are effective and to identify those aspects of interaction that may require further attention.

8.7 REFERENCE

[1] Dickinson, T.L., Hassett, C.E., and Tannenbaum, S.I. (1986), Work performance ratings: A meta-analysis of multi-trait multi-method studies (AFHRLTP86–32, DA174 759), Brooks AFB, TX, USA.

Chapter 9 – SUMMARY, FUTURE RESEARCH AND CONCLUSION

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9.1 SUMMARY

The 1999 NATO Strategic Concept recognized that the increased complexity of the modern security environment meant that effective and lasting solutions to the multi-dimensional nature and the complex interplay of the issues that underlie most contemporary crises involve the skills, expertise and resources of a wide range of organisational entities. This concept of operations, the Comprehensive Approach (CA), has been repeatedly affirmed in subsequent NATO strategic-level documents such as Allied Command Operations Comprehensive Operations Planning Directive (COPD), and the Comprehensive Crisis and Operations Management Centre (CCOMC), to name but a few. CA was also reaffirmed at the Riga Summit (2006), at the Bucharest Summit in 2008, at the Wales Summit Declaration in 2014, and most recently again by the Secretary General Jens Stoltenberg at the opening of the March 2015 NATO Transformation Seminar.

Other international and national-level efforts have also introduced similar notions, although some use different terminology. Still, whether referred to as 'CA', 'integrated', '3D' (Defence, Diplomacy, Development), 'holistic', 'vernetzte Sicherheit' (networked security), 'Whole of Government', 'Whole of Society', 'Civil-Military', 'Total Defence', 'inter-agency', or 'comprehensive security' – organisational and interpersonal dynamics have been consistently identified as essential to achieve effective interaction and collaboration. Specifically, despite the highly needed strengths that the diversity of organisations and expertise brings to bear on complex crises, it also involves significant challenges to achieving effective collaboration in CA. Well documented in other literature, the list of challenges and indeed obstacles to collaboration in such contexts was summarized earlier in this report and includes a: "*[d]iversity of cultures, objectives, motives, principles, and time horizons … ; there is often no unity of command and national independence is critical; cultural differences, social identities, stereotypes, and prejudices complicate interoperability; well-developed competencies, collaboration skills and cultural awareness are needed to operate in these diverse conditions; personnel rotations cause lack of knowledge of partners and also loss of trust between partners.*" [1]

Although consistently acknowledged, there has been relatively little work devoted to the uniquely human aspects of collaboration in the comprehensive approach. These realities led to the initiation of NATO HFM-227 RTG 'Building Effective Collaboration in a Comprehensive Approach', the focus of which was to better understand and address the challenges associated with collaboration in CA missions.

The work of our RTG reflects three guiding assumptions:

- First, the key to effective collaboration lies in the people who are called upon to contribute to it – technology, processes and procedures will enhance collaboration but will always remain only an enabler of an essentially human undertaking.

- Second, the CA concept quite rightly includes a wider range of players, including non-governmental actors whose underlying philosophy, and indeed often their security depends on remaining impartial and neutral in a mission area, precluding all but the most limited of interactions with governmental or military entities. Still, as our focus was on collaboration, our efforts were directed towards organisations within a CA collective who would be amenable to more active forms of collaboration with a range of governmental actors in a mission space.
- Third, our focus is on the processes that underlie collaboration – the interaction between the people representing those organisations contributing to CA – rather than on outcome effectiveness measures per se. This is because we recognize that CA is applied in the most challenging of missions in contexts that have a great many variables that are not under the direct control of the CA collective. Nonetheless, all things considered, we remain convinced that effective collaboration among contributors will improve the likelihood of CA success.

Accordingly, we first sought to identify the interaction requirements needed to build and improve the quality of collaboration in CA. Second, we directed effort toward determining whether these factors could be systematically assessed. There was a very pragmatic rationale for the development of an assessment instrument: to provide a tool to CA commanders and leaders, members of CA collectives and/or observer/trainers that would provide systematic feedback to improve the interaction process to achieve a well-developed and ultimately more effective CA. To this end, and as summarized in Chapters 1 – 3 of this report, we initially immersed ourselves in the variety of configurations of what is essentially a comprehensive approach to international and domestic missions. These initial chapters also speak directly to the task of identifying interaction and collaboration requirements.

Specifically, effective collaboration between people, agencies and organisations in such contexts requires:

- Sufficient knowledge about the other parties to effectively engage and interact. This involves a variety of uniquely human aspects; a willingness to reach out and to ask about, operating principles, expertise and experiences, and capabilities, rather than proceeding based upon a lack of knowledge or, at least as problematic, based on assumptions that may be erroneous and be based on negative stereotypes.
- Developed social networks with a basic level of trust.
- Supported by organisational arrangements and social competencies in order to achieve a successful implementation of a comprehensive approach.

In summary, we believe that while technological advancements can be significant enhancers, the ability to utilize and indeed to optimize the benefits of diversity under conditions of uncertainty is generated by the humans in the system. Given the right conditions humans are able to span the boundaries of the many sub-systems that are active, to reach out for the expertise and resources needed, to organise and adapt to situations, and to make decisions. Indeed the empirical assessments of a variety of CA training exercises and activities summarized in Chapter 5 confirm these overarching findings.

Many past assessments of early CA training events raised several areas for potential improvement. In response to such criticisms the Netherlands, as summarized in Chapter 6, proposed an alternative approach to the structuring of CA training. In particular, the formulation of such training exercises should focus on ‘intensive interaction’ and incorporate the following principles – short, rich, relevant, and inclusive.

The operationalization of these principles means:

- The development of scenarios that about equally meet the training needs of and are developed by all CA contributors.

- The involvement of actual personnel versus role players.
- Exercise scenarios and dilemmas that are based on real and actual scenarios and that match as closely as possible the strategic interests and current operational foci of the participating organisations.
- Attention given to making the exercises as short as possible to minimize financial and personnel resource investments, but long enough to develop a shared understanding of mutual differences in principles and position, as well as in operational details.

The emphasis is on inter-organisation interaction on substantive issues in which the differences in perspectives and work practices and how processes and resources fit together and can be used, can be addressed. While structured towards some end product, the intended result for such training exercises is not a plan or assessment per se, rather it is to create a setting to gain insight into the different roles, perspectives, methods and means such that an image arises how these combine to form the entire system that is aimed at solving the problem or crisis. As also detailed in Chapter 6, this approach underwent an initial test in the large scale CA Exercise Common Effort 2015, with very promising results in terms of building shared understanding and awareness of the range of mandates and resources of the various contributing agencies and organisations, as well as perceived effectiveness in terms of the development of joint plans based on diverse input.

The work summarized in these earlier chapters was used to inform our conceptual overview concerning the requirements to ensure or to increase the quality of interaction (Chapter 7). Moreover we grouped these identified requirements into an initial framework of effective interaction and collaboration to provide somewhat more structure to what would otherwise be simply a long list of individual requirements. More specifically, we begin with two overarching or superordinate concepts:

- Organizational Readiness which relates to the organisational-level requirement or need to interact in a CA context as well as the structures, processes and technologies that exist to support human interaction and collaboration in CA; and
- Interpersonal Readiness, which describes factors or requirements that are more inherently tied to the people involved in CA.

Described in detail in Chapter 7, the requirements for effective interaction will not be listed again here. Suffice it to say, these identified requirements shaped the development of the initial version of the Quality of Interactions Assessment Instrument that is detailed in Chapter 8.

9.2 FUTURE RESEARCH

The Quality of Interaction Assessment framework and assessment tool presented in this report represent but initial steps toward a deeper understanding of and ability to assess the quality of interaction in the complex and challenging area of CA. Indeed, various research questions remain to be pursued in the future.

To this point, we have identified what we believe to be the key important requirements for effective interaction. We have also presented these in a rudimentary broad framework in which these requirements are listed according to two assumed overarching groupings: Organizational readiness and Interpersonal Readiness. However, at this point we stop short of presenting a conceptual model which would specify how these dimensions interrelate. Similarly, we have presented only an initial version of the QIA instrument. While many items are drawn from existing and validated questionnaires, and are high in face validity, the real work of scale psychometrics and validation and conceptual model validation remain to be undertaken. Our recommendation for future work addressing these issues would entail an initial study that would involve statistical analyses to

determine the reliability of the initial items. Factor analyses should be conducted to determine if the questionnaire items load on the anticipated separate factors we have presented here, and these factor structures would need to be confirmed in subsequent studies to ensure their robustness and generalizability. Analyses such as these could also be used for item selection in order to reduce the overall length of a revised QIA. With sufficient sample sizes structural modelling would be possible to determine if a conceptual model of the interrelation between these factors exists, and with additional studies determine the extent to which the conceptual model is replicable. Indeed, we recommend preliminary assessments of scale quality should always be conducted within any sample. Such assessments should include, where possible, factor analyses to confirm that items fall on designated dimensions, that the measure achieves satisfactory levels of reliability for a given sample.

Besides the development of the instrument, a wide range of questions is still open; for instance, concerning the effect of knowledge of other organisations and their representatives. Consistent with other researchers in this area, we have identified knowledge of other organisations as an important aspect that facilitates CA interaction and collaboration. A next important step in this regard would be to establish what specific information or knowledge dimensions are critical to effective interaction. For instance, we have hypothesized that having information about the other individual contributors and his or her expertise and experience, and role/position in the organisation would help other participants to quickly find the right expertise to discuss mission and task aspects. It may also be of benefit to determine the extent to which knowing something about the person who is the organisational representative, benefits interaction effectiveness, over and above only having knowledge of the organisation itself. Also, does additional information about the other participating individuals or organisations increase positive expectations? Do these factors in turn increase contributors' investment in effort to engage in interaction with others of novice participants?

Similarly, what specific information needs to be provided about the mission/exercise in order to maximally increase interaction effectiveness in terms of providing the basis for meaningful discussion and interaction on joined assessment of the situation and aligning the plans that are already developed or need to be developed?

Does all this information and knowledge have an effect to reduce the number or the impact of misunderstandings and confusion that may be almost inevitable in such ambiguous and changing contexts? Does this change the way in which disagreements, etc., are addressed?

On a much more pragmatic level, does supplying the information before the beginning of the exercise increase interaction and collaboration effectiveness or is it better to provide initial time to 'read in' after participants arrive for the exercise? Another approach may entail a mix of learning in a face-to-face setting and remotely, e.g., by online learning and web-based interaction. Thus, an important empirical question concerns the type and the amount of information shared that is best shared in what fashion. For instance, we do not recommend simply posting multiple, long background documents; again serious consideration must be given to who needs to know what when and how this abridged information is best presented.

We have also argued that the length of training exercises must be carefully considered: most civilian (whether governmental or non-governmental) operational organisations have little time to prepare themselves thoroughly and cannot be away from their regular work for extended periods. Nonetheless exercises must be long enough to achieve the depth of interaction that is necessary for an effective learning result. What then, is the optimal length to meet these two realities?

Another issue is the evaluation of the effect of the training exercises in practice situations. Effects measurement is noteworthy difficult, since there are so many intervening conditions and variety in operational situations.

But the 'added value' case (or so-called business case) may be needed to convince organisations to invest more in building collaborative capabilities and capacities. How can we measure the effect of trainings in practice? If objective measures are difficult to collect in operational conditions, subjective measures if done systematically would already contribute substantially to the added-value case.

9.3 CONCLUSION

Drawing on all the information analysed we conclude that the Comprehensive Approach will continue to be the dominant strategy to achieve viable solutions for complex security, governance and development missions. The intent of the work conducted by the HFM-227 RTG was to improve the development and implementation of a Comprehensive Approach. Our particular focus was to understand the human aspects of this challenging context, particularly from the point of view of the people who are tasked to 'make it work'. There is substantive evidence that the complexity of multiple parties working together hinders an effective exchange of perspectives and, consequently, this may lead to sub-optimal development and application of a comprehensive approach to crisis situations. We took the diverse wordings for collaboration to its basic level, which is interaction. We analysed how interaction between organisations and their representatives could be improved which resulted in initial version of the quality of interaction framework and assessment inventory are initial versions of tools.

Various efforts to build knowledge and understanding between the organisations involved, in exercises and in the field have been undertaken. Unfortunately, there is no overview of what efforts are being done internationally. Currently there seems to be hardly any exchange between these efforts. Moreover, we expect that each exercise assessment or evaluation, if these are done at all above the informal level, will have their own logic and probably a diversity of factors; a common reference and model is missing. This hinders the progress in this area.

We identified three critical necessities to further the quality of effective CA interactions:

1) A more systematic approach is needed in these training exercise efforts.
2) Common conceptual frameworks and validated assessment instruments should be (further) developed and used.
3) Increased attention and efforts directed toward exchanging the findings from these assessments and lessons learned.

It is our hope that this report may begin to contribute to these much-needed efforts. We suggest that these three critical necessities are taken as recommendation for further research and development of an across-Nations assessment framework and instrument in use. Although preliminary in nature, we believe both the framework and the assessment inventory developed here can provide a starting point for such an effort.

9.4 REFERENCE

[1] HFM-227, Building Effective Collaboration in a Comprehensive Approach, Technical Activity Proposal, 2012, p. 1.

REPORT DOCUMENTATION PAGE

1. Recipient's Reference	2. Originator's References	3. Further Reference	4. Security Classification of Document
	STO-TR-HFM-227 AC/323(HFM-227)TP/703	ISBN 978-92-837-2019-5	PUBLIC RELEASE

5. Originator

Science and Technology Organization
North Atlantic Treaty Organization
BP 25, F-92201 Neuilly-sur-Seine Cedex, France

6. Title

Building Effective Collaboration in a Comprehensive Approach

7. Presented at/Sponsored by

This Technical Report documents the findings of a project on 'Building Effective Collaboration in a Comprehensive Approach' by Task Group 227 for the STO Human Factors and Medicine Panel.

8. Author(s)/Editor(s)	9. Date
Dr. Peter Essens (Chair), Netherlands; Dr. Megan Thompson, Canada; Dr. Angela Karrasch, United States; Mr. Tomas Jermalavičius, Estonia	November 2017
10. Author's/Editor's Address	**11. Pages**
Multiple	118

12. Distribution Statement

There are no restrictions on the distribution of this document. Information about the availability of this and other STO unclassified publications is given on the back cover.

13. Keywords/Descriptors

Assessment tool
Civil-military exercise
Civil-military interaction
Civil society
Command and control
Common effort exercise
Crisis management
Human effectiveness
Inter-agency collaboration
International crisis
Inter-organisation trust
Inter-team coordination
Multi-team systems
Non-governmental organisations
Peace support operations
Stability operations
Team effectiveness

14. Abstract

Complexity is the hallmark of contemporary crises. Effective responses require the perspectives, expertise and resources of multiple actors comprising governmental, public and private organisations, including civil society, and the military – a Comprehensive Approach (CA). Effective collaboration in such settings is a highly complex and challenging undertaking. HFM-227 developed a tool, based on the basic mechanisms of complex collaboration, to support commanders, leaders and members of CA collectives to achieve effective cooperation. The report outlines relevant theory and lessons learned from practice. National level implementation of the CA construct with links with total defence approaches is discussed. The empirical work conducted in CA exercises in Canada and the Netherlands and Germany provides detailed analyses to understand what is needed to realise effective interactions during CA training or operational missions. A new exercise approach for CA is presented that enables intensive interaction between a diversity of organisations in realistic scenarios. Integrating these sources with the objectives of HFM-227, we developed an initial Quality of Interaction Assessment (QIA) framework and tool, comprising organisational and interpersonal readiness factors. The report concludes by proposing next steps with respect to further development of the QIA framework and assessment tool.

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ISBN 978-92-837-2019-5